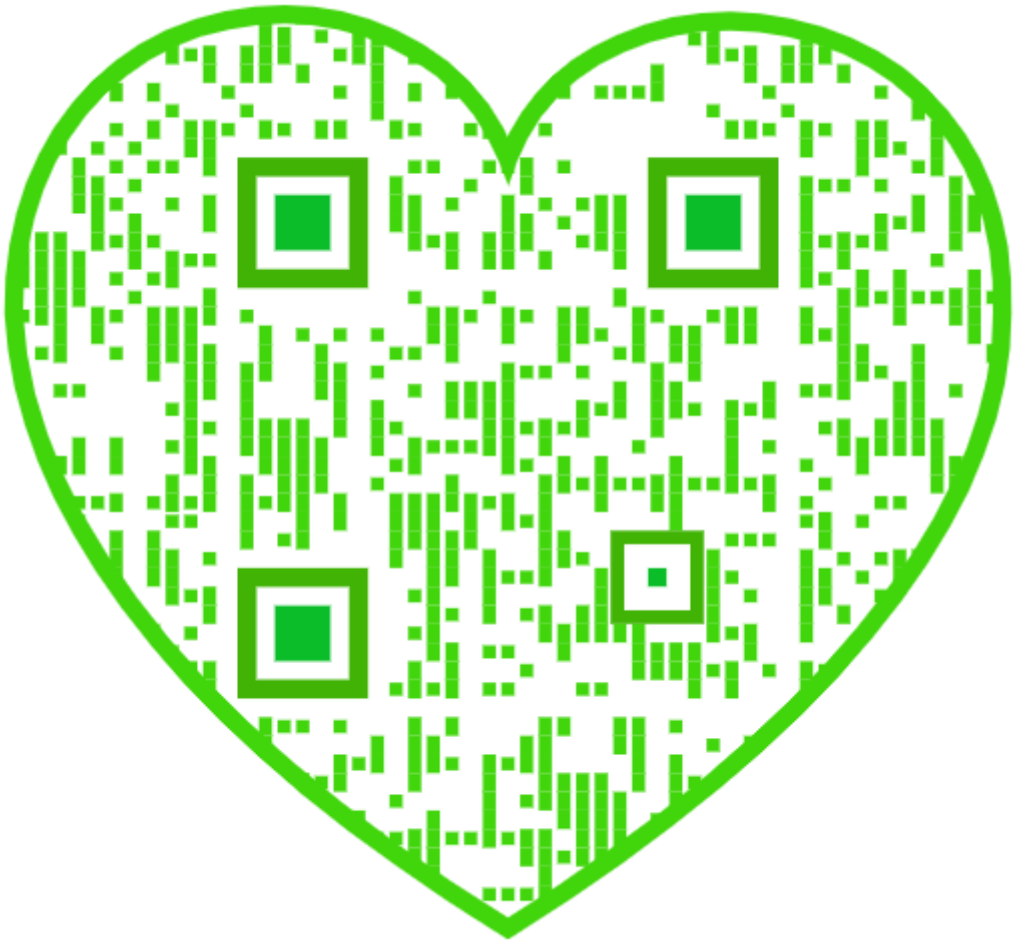

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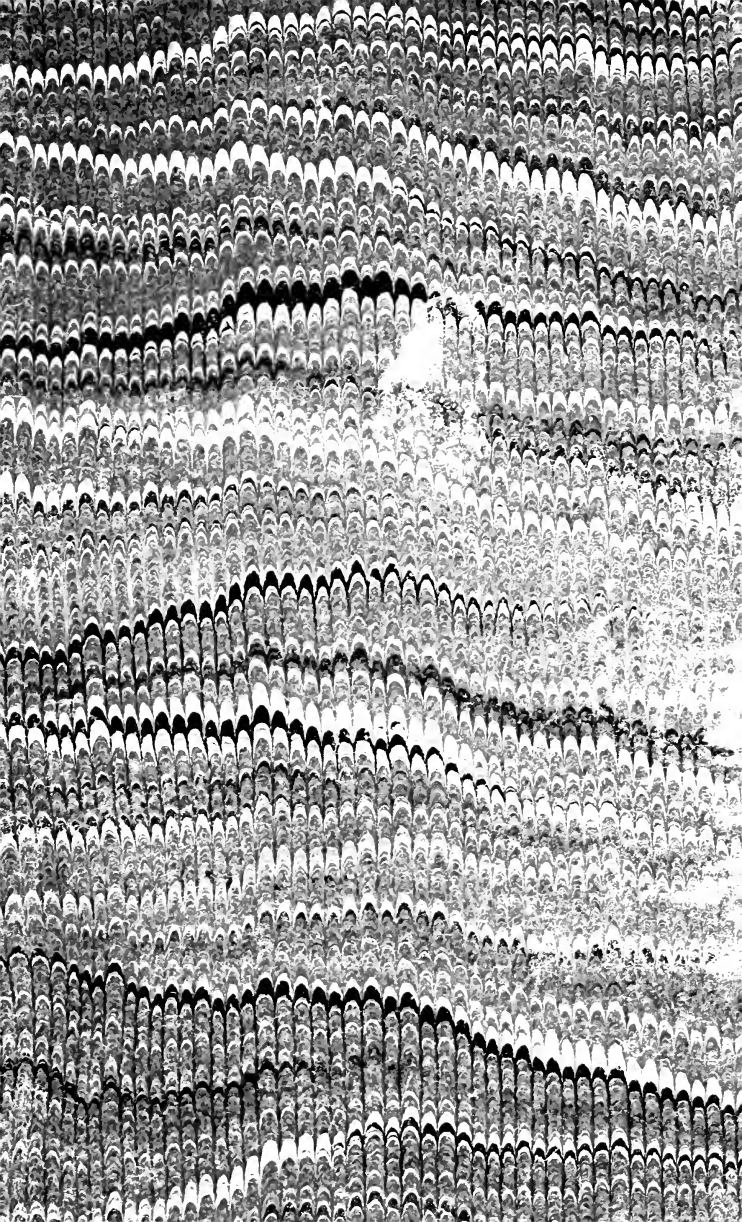

HEALTH UPON WHEELS

OR,

CYCLING A MEANS OF MAINTAINING THE HEALTH AND CONDUCING TO LONGEVITY.

BY

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AUTHOR OF

"Medical Life in the Navy," "Turkish and other Baths,"

"Tea: The Drink of Pleasure and of Health."

Journalist and Writer on Popular Medicine, Hygiene, & Sanitary Engineering.

LONDON

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HEALTH UPON WHEELS.

"The wise for cure on exercise depend:
Better to hunt in fields for health unbought,
Than fee the doctor for a nauseous draught."

* * * * * *

"Health is the vital principle of bliss,
And exercise of health."

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PREFACE.

IN the hope that it may interest some invalid reader, let me here briefly relate what exercise, chiefly cycling, has done for myself. Ten years ago, being then in my thirty-fifth year—a proof in itself that one is never too old to learn—I accepted my half-pay and ceased to serve in the Royal Navy, being a martyr to rheumatism, which I had acquired on the coast of Africa and in India.

I took to literature as a profession. There was no healing power in that, but I shortly took to cycling—the bicycle first, latterly the tricycle. My rheumatism used to come on periodically, and last for six weeks at a time, during which I could hardly stand on the floor, nor sleep in bed without feet and legs elevated. Since I adopted cycling as an exercise, and thus found pleasant means to keep my skin in perfect working order, I have never had a single twinge of rheumatism. God forbid, reader, that I should seem to boast of my health, but I must be permitted to say that I am most active for my age, and though a thin man, can "stay" as well as many younger.

Cycling has banished my pains and lightened my mind, and made me physically and mentally double the individual I was that mournful morning when I left Haslar Hospital leaning on a stick.

Cycling has done this for me—hence my book, which I must now let speak for itself.

I must not forget to mention that I have "stolen" some short excerpts from my own medical writings in that most wholesome magazine, yclept Cassell's. These excerpts I beg to acknowledge. I feel half inclined to boast about the purity and excellence of the literature in that magazine; as, however, I belong to its staff, it would be boasting with a vengeance. So I refrain.

I confess here that to say all I wished to say briefly, yet to the point, has been my only difficulty in preparing this little work. Any one of my chapters might very easily have been made five times the length it is without exhausting the subject matter. My aim has been to be purely practical and useful, and I trust I have written but few sentences that could have been dispensed with, and used few technical terms whose place might have been better filled with simple, homely phraseology.

I am not aware that I need say any more in this preface of mine.

I humbly pray, however, that my little book may do good, and add thousands to the glorious and healthful army of cyclists.

W. GORDON STABLES.

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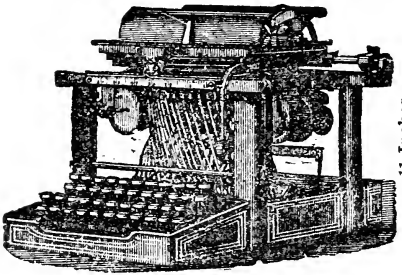

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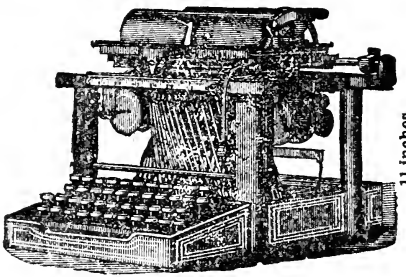

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HEALTH UPON WHEELS.

CHAPTER I.

WHAT IS MEANT BY HEALTH.—PROFESSOR WATSON'S DEFINITION.—DEATH RESULTING FROM WANT OF EXERCISE.—ORGANS IN THE BODY MUST BE PROPORTIONATELY AND EQUALLY EXERCISED.—WITNESSES *pro* AND *con*.—THE ARGUMENTS ADDUCED.—CYCLING.

IN a small work like the present, the author of which has no other ambition than that of giving practical, common-sense advice on the maintenance and restoration of *Health*, any lengthened dissertation *on*, or enquiry *into*, the true signification of the word itself would be only useless waste of space.

There are few men now living who can write and teach in so pleasantly explicit and comprehensive a manner as did the late Sir Thomas Watson, Bart. As Macaulay to history, so stood Watson to medicine. All his writings and books may be read with an interest sustained and never flagging from the "introduction" to the "end." In his first lecture on the "Principles and Practice of Medicine" this learned gentleman made the following remarks :—

"Health is represented in the natural or standard condition of the living body. It is not easy to express that condition in a few words, nor is it necessary. My wish is to be intelligible rather than scholastic, and I should puzzle myself as well as you, were I to attempt to lay down a strict and scientific definition of what is meant by the term "health." It is sufficient for our purpose to say that it implies freedom from pain and sickness; freedom also from all those changes in the natural fabric of the body, that endanger life or impede the easy and effectual exercise of the vital functions. It is plain that health does not signify any fixed and immutable condition of the body. The standard of health varies in different persons, according to age, sex, and original constitution; and in the same person even, from week to week or from day to day, within certain limits it may shift and librate. Neither does health necessarily imply the integrity of all the bodily organs It is not incompatible with great and permanent alterations, nor even with the loss of parts that are not vital—as of an arm, a leg, or an eye. If we can form and fix in our minds a clear conception of the state of *health*, we shall have little difficulty in comprehending what is meant by *disease*, which consists in some deviation from that state—some uneasy or unnatural sensation of which the patient is aware; some embarrassment of function, perceptible by himself or by others; or *some unsafe though hidden condition of which he may be unconscious;* some

mode, in short, of being, or of action, or of feeling different from those which are proper to health."

He who runs may read language so distinct and clear as this. And after reading it, it very naturally occurs to one to ask himself the question, "Am I in good health?"

The words in the above quotation from Professor Watson that I have taken the liberty of italicising, viz., "some unsafe though hidden condition of which he may be unconscious," are in a measure alarmative, because they teach us that a person may be in a state of aberrance from the paths of health without knowing it. This is one good reason then, I think, why people should endeavour to form habits of obedience to those simple and well-known laws which we term hygienic.

It just occurs to me to give an example in point—I could give many.

I met J—— D—— one morning about two years ago. He was healthy enough looking to all appearance, though somewhat stout to a medical eye; age nearly 50.

"Doctor," he said, smiling, "I read your article on 'Exercise' in the ——— last night."

"Did you?" I replied. "I hope you benefited by it."

"Not a bit," he said bluntly. "Look at me. Do you think there is anything the matter with me? I never bothered about exercise, and, what's more, I never will."

Nor did he. He was found dead a month or two after this, near his bed. *Post-mortem* revealed a feeble, fatty, and ruptured heart.

While many people neglect taking a sufficient amount of exercise, others entirely neglect the use of even an occasional bath, and ignore the hygiene of the skin. Those that do so are certainly not living on the safe side, to say the least of it.

The standard of health is not the same in all who may be said to be quite free from disease of any kind.

Good health depends in a great measure, not only in freedom from blood taint, but in the formation, the perfection, and proportionate size of the different organs of the body. If any internal organ in a man's body is either constitutionally over-developed, or becomes so from artificial means, his state is not compatible with the conditions necessary to good health, and the converse of this proposition is, of course, true.

That form of exercise, therefore, that acts upon or moves nearly all portions and organs in the body equally, would seem to be best suited for the maintenance of health. Many medical practitioners, for instance, have noticed that rowing men—those among them at all events who give themselves quite up to the sport—are more subject to hypertrophy, or muscular enlargement of the heart, than are, say, hunting men. If more blood is pumped out by a strong muscular heart than the system wants, or more than can be conveniently returned, it is easy to conceive that head-

aches and vertigoes may result, with difficulty in breathing while going up a stair quick, or up hill, palpitations, and ultimate dropsies of important organs.

This state would be one of those that Sir Thomas refers to in the words above quoted, "Changes in the natural fabric of the body that endanger life, or impede the easy, regular, and effectual exercise of the vital functions."

I have mentioned the heart, and I might probably be permitted to say that a very highly or disproportionately developed brain is hardly compatible with health or happiness. As the brain so will the nervous system be. Examples: such geniuses as Carlyle, Burns, Byron, Lamb, &c., in literature; or, in warfare, the ever-restless and abnormally ambitious Buonaparte.

Though the standard of health in the same person may, within certain limits shift and librate from week to week, or from day to day, still the better the system is balanced, and the more proportionate the vital organs one to the other, the nearer to perfect health does the individual approach.

Probably your trained athlete comes as nearly as possible to perfection of body—externally at all events. He is a noble animal. Yet how often we notice athletes, amateur as well as professional, who have paid every attention to the development of the muscular part of the body, but who have neglected to cultivate brain, *i.e.*, mind, and who are oftentimes swayed by the grossest of passions, and succumb to temptations that

other men can resist. I must be forgiven if I speak plainly. I *think*, therefore I *write*. The exercise used by athletes in getting into form too often lacks that *sine quâ non* of healthful action—it lacks pleasantness, the mind is not always *en rapport* with the moving body, and so is left behind in the race.

The health of the individual is of the greatest interest to himself—I mean, that, however much he may deny it, either verbally or in his actions, a man has a deep concern about the state of his own health and constitution, especially when he comes to be about that age, at which he is supposed to be either a fool or a physician.

Yet how often do we not hear men boasting of their innate strength, "I've the constitution of a horse." I have heard an individual remark, "I do not see why I should not live till I am eighty or ninety." And it is very often people like these that go first, and go suddenly. They are like men who walk on lava crust, they have seen it break under others, they never for a moment imagine it will crumble under them, till all at once it cracks and down they go.

We deem all men mortal but ourselves. This may be sensible in the young; their lives, be they longer or shorter are all before them, the purple mist of distance beautifies the future, hope is one of the feelings uppermost and strongest in their minds, they can afford—probably—to be to some extent careless, and even reckless, but a man of middle age needs to keep a

firm hold of health, else it may slip from his grasp, leaving a gap for death to enter.

Whatever, therefore, young men do, or can afford to do, I say that an individual who has reached the age of forty or over, ought—if ever he means to do so—to learn to live rationally. He ought to be timely wise, remembering that "with health all sense of pleasure flies." Nor is it so very difficult, after all, for anyone to live according to the laws of health. Good habits may be formed as well as bad ones. Not so easily, I grant you, but being formed, or for a time enforced, they too become second nature.

Some remarks of the author of "Elia" keep running through my head as I write, and for the life of me I cannot help penning them, although they in a certain sense militate against my doctrine of reform: "What," says the gentle author, "have I gained by health?—Intolerable dullness. What by early hours and moderate meals?—A total blank."

I question, however, if Charles Lamb, after so many years spent in the London of his day, had very much liver left. If he had, probably it was a very knotty one, and piebald rather than brown.

Now, I should be sorry indeed if I left my readers to infer, that after a reckless life up to the age of say forty, forty-five or fifty, a decided reformation of habits will so far rejuvenate a man, that he will become quite as healthy and strong as he would have been had he spent his days in a more rational manner; one cannot

have his cake and eat it too, *but* better late than never, he can by care save the morsel of cake he has left instead of throwing it to the dogs and going hot foot after it.

Every severe illness, no matter how well we get over it, detracts from our length of days: how much more then must twenty or more years of a fast life do so? With our horse's constitution we may come through it all with life, but it will leave its mark, if not externally, internally.

I am perfectly willing that the reader should have both the *cons* and the *pros* of the argument, and will even sit in judgment on the statements I have just made, and will myself call upon witnesses that may seem to disprove them.

The first to take the box is your careless, sceptical happy-go-lucky man, your live-for-to-day-and-bother-to-morrow individual, who states that he really enjoys life, and that he can point to innumerable acquaintances, who go the pace far faster than he does, but who nevertheless enjoy perfect health, and are likely to live "till a fly fells them."

The next witness has not much to say, but he tells a little story—a temperance tale he calls it:—

Two very aged men were one time subpœnaed on some case, and appeared in the box before a judge who was well known as a staunch upholder of the principles of total abstinence. This judge, seeing two such aged beings before him, thought it a capital opportunity of teaching a lesson to those around him.

"How old are you?" he said, addressing the first witness.

"Eighty, and a little over," was the reply.

"You have led a very temperate life, haven't you?" said the judge.

"I've never tasted spirits, to my knowledge, all my life, sir."

The judge looked around him, with a pleased smile on his countenance. Then he addressed the other ancient witness, who looked even haler than his companion.

"How old are you, my man?"

"Ninety odd, your worship."

"Ahem!" said the judge. "You have doubtless led a strictly abstemious life, haven't you?"

"Strictly abstemious!" replied the old reprobate; "indeed, sir, I haven't been strictly sober for the last seventy years."

The next witness, and the last we need call, has something to tell us about a remarkable family of McDonalds, who still live in the north-west of Scotland, the youngest—of seven—being eighty, the oldest ninety-five, who have hardly lost a tooth or a hair, but who, each and all of them, lived wildly fast and intemperate lives till nearly fifty, after which they settled down, became sober and sorry for it, and——and there they are. "For many generations," adds our witness, "the McDonalds of this particular ilk have lived in the same district, and done and been, precisely what those that now represent them have done and are."

The name of this family, I may mention, is not McDonald, but the facts of the case are precisely as our imaginary witness has represented. The reader is at liberty to make any inference he chooses from the history of this remarkable branch of a Highland clan. I myself believe that it is no proof against the value of a temperate life, and that had they taken proper care of themselves, accidents apart, every individual member of the ilk might score a hundred. Instances of longevity in the far North are far from rare. I read on a tall tombstone the other day in an out-of-the-way corner of Aberdeenshire, the names and ages of a family of five; to the best of my recollection they ran as follows: 82, 85, 95, 97, and 99. These names were stuck right away up at the top of the tall tombstone, leaving a large blank space beneath for, so it seemed to me, more octogenarians and nonogenarians to come.

Well, all this may give some comfort to hale old men between sixty and seventy, who still can hold a cricket bat and mount and ride a tricycle. At the same time it ought not to encourage young men to fritter away the best of their days, in folly and injudicious living. The middle-aged may mourn the past, but to a great extent his life and strength lie within the grasp of the young man, to do with them what he chooses.

To most of us is given a certain amount of what we may call strength of constitution. It is our duty to endeavour—as well as we know how—to conserve

that strength. Nay, but I am fully aware that the word "duty" in this sense will not appeal to everyone; I must add then that it is for our present and future comfort, to make efforts to conserve our health and strength. Thousands of those we meet every day in the streets do not really live, they merely exist, for

"Life is not to live but to be well."

Without health this world is but a black, bleak, barren wilderness, entirely devoid of real joy and happiness, and this, too, even although we may be possessed of youth and wealth, taste and refinement.

And few, alas! value sufficiently the blessing of health until it begins to slip away. We are not all born with healthful constitutions, but even those who are born weakly can do much to strengthen and vivify their systems, by adopting a plan of judicious and rational living; by steering clear of that rock on which so many lives are lost—I mean the abuse of medicine; by proper attention to cleanliness; by drinking only pure water; by breathing, as far as possible, only pure air; by avoiding worry as much as they can; by being temperate, not only in eating and drinking, but in everything; and by taking a proper amount of exercise of the kind most suited for the individual health—the best by far at the present day being what we term Cycling.

CHAPTER II.

THE HEALTH OF THE SKIN.—CLEANLINESS NEXT TO GODLINESS.—PEOPLE WHO EXIST IN THIS COUNTRY YET NEVER BATHE.—THE USES OF THE SKIN IN THE ANIMAL ECONOMY.

NO one who values true health, *i.e.*, the *mens sana in corpore sano*, can afford to neglect the health of the skin, and least of all, the cyclist, if, indeed, he wishes to enjoy to the full all the pleasures and benefits that accrue from that most delightful exercise.

"Cleanliness is next to godliness," so runs the adage, and I've heard this sapient observation made, much to my surprise, by a man to whose body soap and water was not applied once in a twelvemonth. Oh, yes, the individual in question—and he is not such a *rara avis* after all—did wash his face and hands daily, but as for taking a bath—never!

Probably this man was second cousin to the old gentleman who used to wear a shirt for a whole month, turning it occasionally, however, with the remark, "Clean linen is wholesome."

But thousands and thousands of people, especially in the northern parts of these islands, live, or exist at all events, to whom the luxury of a morning tub or a tepid

bath in the evening is entirely unknown. I will not go so far as to say that such beings are positively unhealthy, but I am convinced that their lives would be more useful and active, and their minds far more bright and happy, if they did pay more attention to the health of the skin.

Granting that analysis of the exhalations of the skin has not proved that these, if retained, would be positively injurious to the health, still we cannot but believe that transpiration, and to a certain extent perspiration, is of intrinsic value in the animal economy, else so elaborate an emanatory as the skin would never have been perfected by an all-wise Providence.

Now, before going on to say anything about the value of baths and bathing to the cyclist, and, indeed, to everyone who values his health and comfort, let me, without going into the anatomy, or very deeply into the physiology of the skin, write a line or two about its various uses.

1. First and foremost, then, the skin forms a protective covering for the whole body. Without such a covering the tender and sensitive parts that lie immediately beneath it, would be exposed to every kind and every degree of violence.

2. It beautifies and adorns the body it covers.

3. It is the organ of touch; it is a medium betwixt the nerves spread out on its inner surface and the external tangible world, through which, in a way generally more pleasant than painful, impressions are conveyed to the

brain as to the state and condition of matters and things with which the body may voluntarily, or involuntarily, come into contact. It may thus warn us of danger to the health or danger from violence in a hundred different ways, besides being to us virtually almost a second sight.

4. It is the regulator of the heat of the body. It is well known that people whose skins are not in good working order, to use familiar language, suffer greatly from heat in summer, while those who perspire freely can stand the rays of the sun, and even tropical warmth, without danger or oppression. For the evaporation of perspiration or transpiration carries with it heat from the body, upon precisely the same principle that those round brown clay chattees that come to us from India and the South cool the water contained in them. Tommy Brown, the medical student, also tries to carry out this principle, when, previous to a stiff exam. he sits up all night working with a wet towel round his head to keep his brains cool. Poor Tommy, alas! how often he starts from false premises, for a large number of medical students have not got any brains at all. I well remember little monkey-faced Slimmens of ours, who, after trying to pass his first three examinations four times and failing, was seriously advised by the learned professors to go and assist his father in his business. His father sold delf, cups and saucers and such, and other earthenware utensils of greater utility than elegance of form, and to which, when

chaffing Slimmens, we, his co-students, did not fail to give the right name, so poor Slimmens had a bad time of it.

5. The skin, by means of myriads of sweat glands, carries off and out of the body a vast amount of what can only be termed—ugly though the word be—excrementitious matter, which, if retained in the body, would poison the blood to a great extent, and unfit it for the healthful performance of its various important functions.

Some recent authorities, imbued with the spirit of contradiction and much given to jumping at conclusions, which is one of the failings of the age, have attempted, somewhat lamely it must be admitted, to prove that Turkish baths, hot baths, and diaphoretics, are all a delusion, that a cold was never prevented by their use, nor incipient disease held in check. *Audi alteram partem.* "The amount of fluid," says a great and learned authority, "exhaled from the skin and lungs in twenty-four hours averages about three or four pounds. And there is good reason to believe that this excretion is of the greatest importance in carrying off certain substances that would prove injurious if allowed to remain in the blood.

"That which is called the hydropathic system of cure proceeds upon the plan of increasing the cutaneous exhalation to a very large amount; and there seems much evidence that certain deleterious matters, the presence of which in the blood give rise to gout, rheumatism, &c., are drawn off from it more speedily and certainly in this way than in any other."

6. The skin, to some degree, acts as an absorbent.

7. And to some extent as an organ of respiration.

8. A healthily-acting skin is of great assistance to the more important internal organs of the body, as the lungs, the liver, spleen, and kidneys. It, at all events, relieves them from extra strain and permits them to obtain rest at times.

9. A well-regulated and well-managed skin is proof against many forms of disease, some of them loathsome enough in all conscience. In a handbook for the use of those who meditate a course of baths,* I make the following brief remarks on the subject under hand at this moment:—

"By means of the sweat or sudorific glands, with their innumerable effluent ducts—called pores—an immense amount of effete matter is in the course of every twenty-four hours carried off from the body, which, if retained in the system, would tend to lower vitality by poisoning the blood.

"If the reader will bear in mind that the lungs perform a renovating function on the whole mass of the blood, that oxygen is inhaled, and that air loaded with carbonic acid, water, &c., is exhaled, he will readily understand how much assistance the respiratory organs proper must receive from a healthfully acting skin.

"Nor can the intelligent reader be unaware that the

* "Turkish and other Baths: A Guide to Longevity," published by Messrs. Clark and Co., Strand; and Messrs. Allen and Son, Marylebone Lane, London.

nutrient portion of the food we eat, after undergoing the process of digestion performed in the mouth—wherein it is masticated and mingled with the solvent saliva—in the stomach—where it is reduced by muscular action and the gastric juices to the pulp called chyme—and in the upper portions of the intestines, wherein it receives the secretions from the liver and pancreas and becomes chyle, is at last collected by a series of absorbent vessels which unite and re-unite till they form the thoracic duct, or grand chyle canal, which empties itself of its valuable and vital contents directly into one of the largest veins in the body, and is thus mingled with the general circulation. He knows also that the pure, life-giving, arterial blood that, rushing onwards from that mighty force-pump, the heart, is equally distributed to every atom of the system, and returns at last, laden with the used-up particles of the tissues ; that, in fact, a constant change is going on in the system, a constant deposit of new matter, a constant discharge of old. And that the dark-coloured venous blood, containing the effete matter, rushes through the lungs, therein to be spread out and chemically united to the oxygen of the air that we breathe before it is again pumped out by the heart towards the tissues to supply them with heat and life. But it must not be forgotten that not the lungs only, but the kidneys, the liver, and the spleen, &c., have each and all of them their duties to perform towards the blood ; and that last, but not least, the skin, when in a state of good health, assists these organs

in no small degree in performing their several functions with freedom and ease.

There are, moreover, other glands which receive assistance from the skin in the performance of their duties. I refer to those distributed here and there in the framework of the body, notably in the axilla, the groin, and under the skin of the neck, and whose functions are to purify in some way or other the matter collected by a series of vessels called the lymphatics, before it is again applied to the purposes of nutrition."

10. There is one other use in a healthy skin to which I am not aware physiologists have ever given any degree of prominence, if, indeed, they have mentioned it at all. A well-acting skin, then, is a calmative to the nervous system. While making this remark, I do not forget that in some states of delirium or mental excitement, notably that produced from over-indulgence in stimulants, the skin is hyper-active, and the perspiration very profuse. Probably this is a mere effort of nature to get rid of the alcoholic blood-poisoning, and there is no doubt in my mind that if such perspiration did not take place, we would find burning feverish mania instead of mere excitement.

I know the case of a grocer who, unfortunately, has a leaning towards the imbibition of too great an amount of alcoholic stimulant, and who is supposed by his customers, and even by the men in his employment, to be subject to occasional fits of rheumatic gout, which compel him to take rest in bed for a day or two. His

wife knows the nature of these attacks, and so do I. He has more than once expressed himself to me in the following words, when I have proposed proper medical treatment:—"Oh! doctor, I know what ails me, and I know my only remedy, and that is just to lie here, drink water, and *sweat it out.* I should go mad if I didn't." After some days of his own peculiar treatment, the patient appears again—he is a somewhat flabby, stout man, by the way—looking paler and more bloodless than usual, weaker as to voice, and rather unsteady in hand, and probably in resolution as well, but quiet, calm, and evidently recovered.

This is, of course, an extreme case, but we all know the calmative influence that the warm bath, and to a greater extent the Turkish bath, exerts on the nerves and on the mind, and we cyclists know right well the quiet joy felt when we are out for a spin and just a few miles on the road. The action of the pure air we breathe, and the change of scene and forgetfulness of care, worry, and business, have no doubt a deal to do with this feeling, but at the same time our skins are breathing, our blood is becoming momentarily more pure and healthful, and our brains more clear and more delightfully calm.

CHAPTER III.

ON THE BENEFITS DERIVABLE FROM BATHS AND BATHING.—THE WEAKLY SHOULD RIDE WITH CAUTION.—THE "ONLY MIDDLING" CLASS DEATH BUSY IN THEIR RANKS.—THE MORNING TUB.—THE SOAP BATH.—THE SHOWER-BATH.—SEA-SIDE BATHING.—RULES FOR SEA SIDE ENJOYMENT.

THERE are baths *and* baths—baths curative and baths hygienic. The latter ought to be used regularly by every cyclist who is desirous of keeping his health up to the proper standard, his muscles hard and firm, and his heart free from fat. The former —the baths curative—ought to be used by the invalid before attempting either tricycle or bicycle riding. If it were possible for a weakly person to constantly trike upon perfectly level roads, without either depth of mud or inches of dust upon them, the exercise would be of great utility, but in general debility of the system it must be remembered that the internal organs partake of the universal flabbiness, and nothing is more fraught with danger to a weak heart and enfeebled nerves, than riding up even moderate inclines.

For a person in ordinary health, even although he does not seem nor feel over strong, there is little danger in riding so long as it is kept within due bounds at

first, and so long as the exercise is not carried beyond the boundary line of pleasant tiredness.

If my judgment be correct, about two-thirds of the illnesses from which people in these islands suffer are of a chronic or sub-acute nature. Tens of thousands of individuals are of the only middling class, and go on suffering more or less day after day, hoping one day, fearing the next, hardly daring to consult their family doctors, sometimes physicking themselves in a feeble, haphazard, half-hearted kind of way, making themselves believe that they are merely suffering from a little nervousness, a little dyspepsia or a liver a trifle out of order, but which will come all right of its own accord one of these days, or maybe when the fine weather comes.

Alas! Death reaps a terrible harvest from the ranks of this only middling class, for the people who compose it are even more subject to be attacked by any of the thousand and one ailments to which human flesh is heir, and being so attacked they have not the stamina to withstand the onslaught, nor recuperative power enough to repair the breach made by the disease, and if Medicatrix Natura can do but little for them, what can a doctor do?

Now, the mistake that this class of people—I am speaking, of course, of those who are labouring under no specific disease, such as kidney, lung, heart or liver complaint—makes, lies in the reckless and indiscriminate use of medicine, usually self-prescribed.

I would urgently advise all people who suffer from chronic debility, indigestion, low spirits, nervelessness, and all those many symptoms which make up the ailments on which advertising quacks do fatten, to disabuse their minds once and for ever of the absurd and devilish doctrine that medicine can support life and health, and make a bold attempt to regenerate their lives, before it be too late, by rational living, by temperance, by the abjuring of every evil or debilitating habit, whether of thought or deed, by regular exercise, by judiciously chosen diet, and the non-intermittent use of the bath. If, as an aid to such a course of living, medicine were indeed thought advisable, then let them consult their own physician, and let him prescribe. But I invariably set my face and couch my lance against the practice of self-physicking.

Reader, twenty long years ago, when I joined Her Majesty's Navy, being then little more than a lad, I took with me a Bible and Testament my mother gave me. You will not say I am a scoffer at true religion —as opposed to cant—when I tell you that I have never parted with that book in danger by sea or by land; in sickness and amid pestilence it has been a comfort and a joy to me. Well, some few years ago, a body of good-intentioned and very learned divines attempted to correct and revise our Book of Books. With all due respect to these gentlemen, I must boldly and plainly say the attempt was a failure. Better far the New Testament had been left alone in its original beauty and simplicity.

But if, on the other hand, a body of learned chemists and physicians were to meet and set to work to revise and correct our British Pharmacopœia, and expunge therefrom all the useless or doubtful drugs, that have descended to us from past generations, or taken on hearsay from old wives—male and female—of the present day, a real good would be done to the country at large.

I would root out from the Pharmacopœia hundreds of so-called medicines and fling them to the dogs, quite certain in my own mind that these noble animals have far too much good sense to touch or even smell them.

In my last chapter I mentioned briefly the uses and importance of the skin in the animal economy. It must be evident to all who have read so far that we ought to assist the skin in the performance of its functions by maintaining it in as healthy a condition as possible. We do so principally by regulation of diet; by exercise; cleanliness, not only in clothing but in all our surroundings; and last, but not least, by the use of the bath and a good soap.

It is not, however, the skin alone that the use of the bath benefits, but directly or indirectly every organ in the body. The muscles are strengthened and the nerves braced thereby, and the liver and kidneys —from the morning tub, for example—receive a fillip that is of service to them all day long.

A cyclist, even while touring, should not neglect to take his matutinal bath. He ought to carry his own

bath sponge—it need not be very big, and it goes into a small compass when pressed—and his own bath towel.

The temperature of this bath should be regulated according to the state of one's own feelings and the state of the weather. For my own part, I prefer it as cold as cold can be all the year round. If I put warm water in it I do not feel so comfortable after I am dried down. If I take it quite cold I feel happy even before I am dry, and generally sing while dressing. This is a good sign, but I should not feel any inclination to sing after a tepid tub.

I am not a robust man, but thin, though with good limbs, bone, hips, and chest; height, 5ft. 9in.; weight, nearly all the year round, 11 stone. I have been induced to put hot water in my bath in very frosty days in winter. I did this, acting on theory. I thought I ought to, but when I have done so I have invariably repented it, for instead of getting warm after it I have had that shivery, unpleasant feeling which proves that reaction is imperfect. So now I never mind the ice.

Very much has been spoken and written about the glow that theorists especially aver should follow the action of a cold tub. Well, a strong, blood-filled man, with a big, thumping heart, probably ought to feel a decided glow, but ten to one a person of the nervous temperament will feel but little glow, albeit the bath does real good. *I* do not have a glow. I do not want a glow. It is quite sufficient for me that I begin to sing before the rough towel is out of my hands,

and that while shaving I wonder what is for breakfast, and long to be at it and over with it and away to my work, which is wholly brain work, and therefore sedentary.

The flesh-brush is of great use, but there is no occasion to scrub too hard.

Well, now, people who make it a constant habit to take the matutinal cold tub, very seldom suffer long from common colds. They take them, but they hardly ever descend beyond the nose, and go away in a day or two.

Ladies should take the morning bath as well as gentlemen, but if their feelings inform them that a cold bath is too much of a good thing, then they may take the chill off. So may delicate men. And if the habit of bathing be begun in summer and strictly adhered to, it will soon be looked upon as one of the greatest luxuries in life.

"It is too much of a shock to the system—I couldn't take it."

I seem to hear some of my readers make use of the above words.

But the shock to the system is very much mitigated and rendered more beneficial if the whole body is first washed in hot water, and well lathered with good soap. At hotels you may not always get water hot enough, and you never get good soap. Messrs. Allen and Son, 21, Marylebone Lane, Oxford Street, London, have made for me a delightful little apparatus for heating water, boiling an egg, and making tea. It is small enough

to go into my tricycle basket, and by its use I am quite independent of Mary Jane at home or a chambermaid abroad. I awake at seven and get up at seven, wherever I am. No, not quite get up at seven, but at that hour I lean out of bed and light my spirit lamp, then after five minutes spent in meditation, I find the water is boiling, so I start, and at once proceed to the fruition of the warm soap bath, followed by the invigorating cold sponge. Some ripe fruit eaten immediately after, such as a few grapes, tamarinds, an orange, apple, or a pear, is another kind of fruition—pardon the vile pun —and a very useful one too.

A short walk does good betwixt bath and breakfast, but not a long one, about ten minutes. In some states of health a glass of pure cold water tones the stomach and cools the blood, if taken about fifteen minutes before breakfast.

Weakly people should eat a tiny biscuit—one of Huntly and Palmer's *extra toast* is just the thing, and drink a cup of nice tea before going out. Or, what does equally well with some people, is a piece of the best *chocolat menier.*

Need I add that no one possessed of his reason would think of drinking wine, beer, or spirits in the morning. No cyclist would, of this I am convinced, unless he meant paying an early visit to the graveyard.

As a home bath for the cyclist who is in good health, I can confidently recommend the shower-bath. This, too, should be taken after the warm soap bath that

I have just spoken of. The shower-bath is even more invigorating than the sponge, but it gives a greater shock to the system, and everyone cannot stand it.

I ought to mention that a very little hot water is sufficient for the warm soap wash; pour it into the basin on the wash-hand stand, place yourself in front of it, and lather well all over. Time, two minutes; time in cold sponge bath, two minutes; time for towelling down, about a minute and a-half.

The cold bath should have a handful or two of sea salt thrown into it the evening before, if you wish to make it all the more tonic. If living at a hotel get the waiter to put the water in the bath the night before; it then becomes of the same temperature as the room, and the salt has had time to dissolve.

In a recent article in one of the magazines, while talking about the matutinal bath, I make the following remarks, which are well worth remembering:—

"1. You must consult your own feelings as to whether or not you ought to continue the bath through the live-long winter. We should say, 'Try to do so.'

"2. Let the first spongefuls of cold water be applied to the head and shoulders, and down the spine.

"3. If, from having been up late, you feel too tired or exhausted of a morning to face the cold bath, raise the temperature thereof several degrees.

"4. Be guided by your own feelings as to the temperature of the hot and cold water you use. From 32 to 60 degrees would be right for the cold bath, and about 90 or 95 degrees for the water in the basin.

"5. A cold bath may be taken with advantage when the body is heated, from whatever cause, so long as there is no feeling of exhaustion or fatigue; but never bathe if there be the slightest feeling of chilliness, nor soon after a full meal."

I have still another cyclist's bath to speak of, or rather to mention briefly, and that is the Turkish bath. This ought to be taken once a week. I myself have a portable Turkish bath, which fits easily into my basket when wanted, and a very great luxury it is. After the Turkish bath, soap down, and then have the cold sponge.

Be particular about your soap. There is nothing to equal Pears' scented for ladies, unscented for the rougher sex. The soap is dearer than other soaps, but it lasts three times as long as most of them, as it contains but little moisture, and has no skin-destroying alkaline properties.

Sea Bathing.—What a luxury for the cyclist! Be he invalid, or the robustest of the robust, a month spent at the sea-side, if the climate be well chosen, will add a year at least to his life. On this portion of my subject I could willingly write not one chapter, but three—I am not sure that I might not forget myself so far as to glide into verse. But I shall not, I will be practical. Here then are the rules I have laid down elsewhere for the guidance of sea-side loungers, invalids, and others.

SIMPLE RULES FOR SEA-SIDE ENJOYMENT.

1. Before leaving home, study your trains—unless

you mean to ride—pack your trunks the day before, and carefully avoid all hurry, worry and excitement.

2. Look out for rooms quietly, in a clean, well-aired street, and see that they are clean, airy and tidy, and the landlady also clean and tidy.

3. Rise early every morning, soap down and tub from head to heel, eat a biscuit, and go for a walk.

4. Regular hours, regular meals, regular exercise, and regular medicine (if your doctor says you need it).

5. Enjoy yourself all you can, but beware of excitement and fatigue.

6. Strong men may bathe in the sea before breakfast, but the best time is about three hours after.

7. Walk at a moderate pace to the beach, so as to be neither too hot nor too cold, and undress as speedily as possible.

8. It is better to plunge at once into deep water; don't unless you can swim, however, but after bending and laving the head, face, and both arms, drop right underneath the first wavelet.

9. If you can swim, swim and nothing else. If you cannot, you can at least tumble about and keep moving, and also rub your limbs well with the hands.

10. Come out before you have actually ceased to enjoy yourself.

11. It is better to have your own towels, rough ones. This is the safest plan, for vile skin diseases have ere now been transmitted by means of a bathing-machine towel.

12. When quite dry, dress leisurely.

13. If slightly faint, lie down for a few minutes.

14. After dressing, take a brisk walk, but not under too hot a sun. A lunch biscuit might now be eaten with benefit.

15. The glow after the sea bath proves it has done you good, though absence of this glow does not prove the bath has been deleterious.

16. If, however, a decided chill takes place and is not removed by a brisk walk, a small drop of brandy taken along with a biscuit becomes a necessity. For ladies a glass of some good cordial ought to be preferred.

17. If you are an invalid, try to forget it; if a Hercules, a Nixon, or a Donald Dinnie, try and forget that also.

18. But don't forget light flannel underclothing if the season be autumn, and you are at all delicate.

My lady readers would do well to study these rules, and while at the sea-side all their enjoyments should be quite different from what they are at home, and the simpler they are the better. Abjure theatres, parties—except pic-nics—concert rooms, and balls.

There are various forms of medicated baths, which are used for special purposes, and many of them are highly invigorating, and do an invalid far more good than all the medicine the Pharmacopœia contains could. Space forbids me doing more than merely mentioning the names of these.

There are (1) the oak bark bath, a good tonic; (2) the pine balsam bath, excellent for cases of chronic

rheumatism and nervousness; (3) the alkaline bath, of great use to gouty and rheumatic subjects; (4) the peat water bath, also good in cases of gout and rheumatism, swellings of the joints, congestions of the liver, &c.; (5) the electric bath, tonic, but a doubtful remedy; (6) the iron bath, a tonic bath for ladies and children; (7) (8) and (9) sulphur, creasote, and nitro-hydrochloric acid baths, to be used under medical advice.

Now, in conclusion, let me repeat my warning against people with enfeebled hearts and constitutions at once taking to violent cycling exercise without first getting toned up by good living, the bath, fresh air—change of air if necessary—and moderate exercise, increased day by day. When the cycle is at last brought, remember the Scottish motto for weeks to come—"Gang warily."

CHAPTER IV.

THE DIARY OF AN OLD PHYSICIAN, AND A LESSON THEREFROM.—DYSPEPSIA.—DIGESTION.—THE CHOICE OF FOOD.—THE MAN AND THE STOMACH: A CONVERSATION.—VEGETABLES: THEIR USES.—SALADS.

WHEN a boy, I remember reading, with intense interest, a book called "The Diary of a Late Physician." Indeed, even now, I can recall every incident in some of the startling tales that the volume contained. But, some few years ago, there fell by chance into my hands a diary of a late physician that interested me even more. The facts in the former book depended, entirely I daresay, on the fertility of the author's imagination, those in the latter were very real—

"Chiels that wadna ding,
And wadna be disputed."

The good old doctor that penned this manuscript, which, probably, I have no right to read, flourished in a midland county of Scotland, not a million of miles from Edinburgh, and more than a hundred years ago. He might not have been old by any means, but the caligraphy is wondrous crabbed, and many letters very old-fashioned, abbreviations are freely used, and the whole book delightfully mediæval.

Many entries refer exclusively to the physician's home life. He evidently owned or rented a little farm;

he possessed both turkeys and geese, and it seems the soil did not suit the former, for they were constantly dying. He had cows also that gave a deal of trouble, but sometimes had twins, and an old mare who was constantly requiring to be shod. This last would seem to show that the doctor had a large practice.

Every patient's case is given, both symptoms and treatment, with laconic precision, which proves he must have been a man of method; nor does he hesitate to interpolate short passages indicative of the character —moral or the reverse—of many of the individuals he has been called upon to attend. Here, for instance, is—

"Mrs. B—, suffering from quinsy (drinks like a fish).

"Simon L—, twenty visits (no money; arrant thief).

"Mary L—, confined (a jade; I won't charge; a labour of love).

"The Laird of R—, fracture of forearm (drunk again).

"Widow McH—, nervous fever (a most estimable woman);" &c., &c.

Now, one or two things in this old physician's diary have struck me as worthy of notice. The cases of inflammations—and they are very numerous—seem to have been of a very sthenic type. They are, at any rate, treated in a most heroic way. The doctor must have had his "fleams" constantly at work, and drastic purgatives, emetics, and depressants were freely used; but. nevertheless, perhaps owing to the fact that there were giants in those days, he managed to conduct most of his cases to a successful termination, or, in plainer

language, he pulled them through. Again, in every case of any seeming consequence—and from the symptoms modern physicians would say the cases were just as often wrongly as rightly diagnosed—great attention is paid to the state of the *stomach* and *bowels*, and to *diet*. The medicines given are few and very simple. But what I want to bring most particularly before the reader's notice is the fact that in no one case of serious illness has the state of the digestive canal been neglected or left unseen to, and that although entirely without any of our modern aids to diagnosis, chemical or mechanical, this olden-time physician seems to have been a most successful practitioner. Often and often he must have met with puzzling cases—cases that must have appeared to him little short of mysterious. "Well," he would very likely say to himself, "I can allay pain and I can assist nature to eliminate the poison that is evidently coursing through my patient's veins. The rest I leave to God."

And there are many entries in his diary to show that in cases of more than ordinary danger, which he had been the means of curing, he did give the praise and the honour to Him who rules on earth and Heaven. But I argue that it was often the very simplicity of the worthy doctor's treatment that saved his patients' lives.

If a man wishes to retain health and to enjoy life he cannot be too particular in keeping his whole system in a state of perfect freedom, if I may so phrase it. The liver ought to be free to act, so should the kidneys, spleen, &c., and each and all of these important organs

are bound to be hampered in their actions if *digestion* is not carried regularly on from first to last.

If the great internal glands of the body, of which the liver is the largest, do not perform their duties easily, the lungs have no fair play and no full play, nor has the heart. It becomes functionally deranged, and in like manner, as part of the sequence, follows debility of the nervous system.

Dyspepsia, no matter how produced, is the curse of the age in which we live. It kills, directly or indirectly, ten times more human beings than consumption itself does in our country. If this be so, it is surely of the utmost importance to each and all of us to so regulate our diet, that we may be able to say truly we eat to live.

Slow digestion is only the forerunner of dyspepsia, and this is usually accompanied with constipation, or costiveness, and a dry state of the whole mucous membrane of the digestive canal. A sedentary life and the consequent want of sufficient exercise in the open air are two of the commonest causes of slow digestion.

Cycling is, of all kinds of exercises that I know, far and away the best suited for the removal of slow digestion, but even cycling will not effect a cure unless attention be paid to diet and judicious living. Nor can a man cycle with any degree of comfort who neglects the first requirements of a healthful existence, viz., well chosen food and drink.

In the hope it may be of interest and of use to my readers, I will now give a few hints on diet and

digestion, not so much in relation to actual cycle riding as to the every-day health and comfort of the individual. Food and drink for the cyclist while touring will form another branch of my subject, to be considered further on.

On the subject of Dietetics more books have been written than would fill an ordinary lending library from bottom shelf to top. If one had to read all these in order to know how and what to eat, he might well cry, "Save me from my friends."

"Man!" an old Scotchman said to me once, "I dinna need ony book learnin' to tell me how to manage my stammach, I just eat when I'm hungry and drink when I'm dry."

There is a good deal of sense in what Sandie says, and with a fine-pointed pen, I believe I could write all a healthy man needs to know about diet on a bit of paper no bigger than a fourpenny-piece.

But errors in diet are very common nevertheless, and indigestion is rife.

One very common cause of dyspepsia is hurry at meals. This should be avoided whatever happens. If food is swallowed, such as meat of any kind, without being sufficiently tritureted by the teeth, it is not only unmixed with a sufficient quantity of this dissolvent saliva, but it enters the stomach in a condition that renders it impossible for that organ to act on it. One is more apt to swallow quickly that which has been mashed or reduced to pulp in the kitchen. Though I quite hold with the custom of mashing vegetables, still

they ought to be eaten quite as slowly as if they required lengthened mastication. The same may be said about minced meats of all kinds, and made dishes. Even soups should not be bolted, as they often are, but sipped very slowly.

The habit of dining *solus* is not a good one. If an individual has no other companion he should have a book or a newspaper, he will thus run less risk of hurrying his food down, and of eating to excess. Tough meats of all kinds are to be avoided, and cooking should have for its main object the rendering of meat tender and toothsome without over-doing it.

The saliva is secreted from glands situated in the region of the jaws, and their ducts open directly into the mouth, discharging their contents more freely under the stimulus of food and movements caused in masticating. This secretion, saliva, turns the starchy portion of vegetable food into sugar, a most important article of nutrition, and a good deal of this sugar is almost immediately absorbed into the blood, even before it reaches the stomach. The juices of the mouth then are really of vital moment, and if through any cause, such as worry of mind, great fatigue, &c., they are for a time very limited in quantity, digestion is sure to be retarded or but imperfectly performed. But fatigue, the injudicious use of alcohol, or anything that heats the blood, renders the mucous membrane of the mouth incapable for a time of absorbing, and thus useful digestion is hindered, One should never, therefore, sit down to table, either when heated from riding, or when

tired. A rest, and a refreshing wash, should be taken before meals. Excess in eating is to be avoided. That this is true, everyone admits, and yet nine-tenths of those who sit down to dinner do over-eat.

Taking plenty of time to eat, and being content with but a few well-cooked and simple dishes, are the best precautions against excess, but the more neatly and pleasantly a dinner-table is laid, the more refined the surroundings, the more delightful and suggestive the conversation, the better will be the digestion that waits upon our appetites.

It is the fashion to have soup at dinner, it is a good thing that it is also the fashion to eat but little of it. Healthy people do not want it. The plainer the food and the better the cooking, the more nutritious will the meal be.

Regularity in meal times should be insisted on.

Daily change of diet is essential to health, and where this cannot always be obtained, varieties in the method of cooking the same joint should be studied.

It is impossible, in a small work like the present, to lay down rules as to the best kinds of food or dishes for different idiosyncracies, but our tastes and appetites were given us for the purpose of guiding us in the selection of that most suitable. That which does not seem to agree we ought to avoid as we would poison.

As a rule, gross fat meats, pork, pastry, rich sauces, made dishes, and cheese are difficult of digestion. So are nuts, or anything that needs the stimulus of wine to make it accord. *Apropos* of the subject of diet and

digestion, I give an extract from a pleasant little paper that appeared in that excellent periodical, "Health," a journal that ought to find its way into every household in the land. An imaginary conversation might take place between, let us say, the Stomach and the Man, and making an attack of gout the subject of their recriminations. The Man might accuse the Stomach of having done its duty so badly that he is tormented with a burning fire in his extremities, which will neither let him eat, drink, walk, nor rest. The Stomach might plead justification, and say that she had lighted the said fire as the only means of getting a moment's rest from an intolerable taskmaster. Again, the Man might complain that he had lost all enjoyment of life, that his spirits were depressed, his mind gloomy, his appetite gone, his once fine muscular system reduced to flabby indolence; that his food did him more harm than good, so that it had become a misery to eat, and that every meal was followed by a leaden oppression, which rendered life an insupportable burden. The Stomach, having listened to all this (delivered in a tone of angry accusation), would reply:—"My case is just as bad as your own. Before I had well digested your breakfast you gave me a meat luncheon to see to, and before I had got that out of the way, you thrust a dinner upon me large enough for three stomachs. Not satisfied with that, you wound up the day with a supper, drenching me all the time with ale, wine, spirits, tea, coffee, rum, more wine and more spirits, till I thought you had taken leave of your senses; and

when I heard you groaning in your sleep, starting up every now and then as if apoplexy had broken into the house and was going to carry you off, I said to myself, 'Serve him right if it did.' And in this way you went on year after year, treating all my remonstrances with contempt. I gave you headache after headache; I tried to recall you to reason with half-a-dozen attacks of influenza; gave you a bilious fever; made you smart with rheumatism; twinged you with gout till you roared. But all to no purpose. You went on making me digest till the work broke my back, and now I can digest no longer." This reproach might be made even pathetic by a description of the Stomach watching its hard tasks come down to it from the regions above between dinner and bed-time. First comes a plate of soup and bread, and a glass of sherry. "I can manage that," says the Stomach. Then a plate of fish, with more bread and more sherry; "and that, adds the Stomach, "though these sauces don't quite agree with me. Then comes beef, or mutton, or both, and stout; then game and sherry; then a dish of tart. "Confound this pastry," says the Stomach; "it gives me more trouble than anything else; but if the master will only stop here, I think, if I put out all my powers, I can get even this rubbish out of the way." But she has hardly taken this hopeful view of the case, when down come cheese, celery, apples, oranges, nuts, figs, almonds and raisins, port, sherry, claret, and a tumbler of hot Hollands-and-water. "Good gracious, was there ever such a mess!" exclaims the Stomach; "what can

the man mean? Does he think one pair of hands can manage all this?" Still the willing slave goes to work, when presently there is a rush of hot tea from above, with a thin slice of bread-and-butter. And when the stomach, with infinite labour, has got the hodge-podge into some sort of homogeneous shape, and is preparing to take a nap after her exhaustion, lo! a devilled drumstick rushes into its laboratory, two devilled kidneys, a bottle of stout, and three tumblers of hot brandy-and-water!

After dinner some repose should be taken. I do not mean sleep, but rest for, say, half an hour, or the most gentle of sauntering exercise in the open air. Sleeping after a full meal congests the head. Exercise after a full meal is generally supposed to do harm by detracting the blood from the organs of digestion, but it is the detraction of nervous force and consequent weakening of the muscular action of the stomach that does the real mischief, and this should be borne in mind by cyclists.

The value of solid food is apt to be underrated. I am convinced that many cases of dyspepsia are caused by the use of what the Scotch call "splashy" food and doctors call "slops." How can the stomach do justice to a mixture, for example, of solid meat floating about in a sea of soup and beer. It is impossible that the gastric juices can act upon a meal like this until the fluid portion of it is first absorbed or passes away.

The stomach needs rest as much as any other organ of the body, and if it has not at least one idle hour before each meal it must come to grief.

The supper ought to be a more solid, I do not say substantial, meal than it generally is. Soups and slops ought to be avoided, as they are likely to cause acidity. If a late dinner has been taken, supper is not required. The meal should be taken about two hours before retiring, and excitement of any kind after it ought to be avoided if healthful sleep is to be expected. Going to bed without supper at all is nearly as bad as over-eating. A man who eats what is called a hearty supper generally awakes next morning with a white tongue and is unable to do justice to his breakfast. In fact, a portion of the supper is very likely still in the stomach in an undigested form, and nothing could be worse.

If one does not feel hungry after a cold bath in the morning and a five minutes' walk out of doors, he may rest assured his digestive canal, and perhaps the liver as well, is out of order.

The best hour for breakfast is eight or half-past eight in the morning, lunch or dinner at half-past one, and dinner or supper at seven or half-past.

It is a good plan to eat fruit of a morning, it tends to keep the system regular. I know of no better breakfast dish than well-made oatmeal porridge, and, if it be considered necessary, a morsel of bacon, a bit of fish, or a boiled egg may be taken afterwards.

Vegetables are essential to good digestion, but they ought to be well cooked, and variety should be studied day by day.

It may be well to know that, in addition to some medicinal virtues peculiar to each of them, well-cooked

green vegetables, such as cabbage, Scotch kail, winter greens, sprouting broccoli, Brussels sprouts, turnip tops, spinach, and last, but not least, nettle tops in spring-time, possess properties that assist in the digestion of other foods, they also cool the blood, or purify it, and they assist the action of the bowels.

Roots, such as potatoes, parsnips, carrots, kohl rabi, Jerusalem artichokes, turnips, &c., are very strengthening when eaten in moderation, and the same may be said for peas and beans.

Salads should be much more used in this country than they are. I shall never forget the delicious salads I ate at Delmonico's, in New York, the other day. What a delightful lunch for a cyclist, a well-mixed egg salad with a few milk biscuits, and probably one modest glass of genuine beer. Most of the herbs that are used in the formation of salads are stimulating and increase the flow of the gastric juice, and they are moreover blood purifiers and anti-scorbutic.

The fresher vegetables are the better, and they ought to be most carefully cooked.

In this chapter I have already counselled change in diet. It is a great pity that even at our best cycling houses there is but little choice in the way of food. I wish this were altered, and as in a few years our roads will be almost filled with cyclists, there is little doubt but proprietors of hotels will study the health of wheelmen from a culinary point of view more than they do now.

We do not want heavy dinners. We are almost

sick of seeing that eternal round of beef, that monster ham, and that roast of mutton. Why cannot we have chicken, fish, and game in season? And why on earth cannot hotel cooks boil a good potato as it ought to be boiled? Why is this prince of vegetables served either all broken to pieces or in cheesy, soapy lumps? And why should greens be stringy and brown and vile in odour when placed before a hungry cycling guest?

In one of my contributions on "Popular Medicine" to a popular magazine, I make the following among other remarks on the subject of diet:—

"The constant changes going on in our systems, and the constant waste of substance from thought and action, imperatively demand the injection of sufficient food to repair the tissues and keep up the animal heat. But not only must the food taken be sufficient in quantity for our wants, but it must contain the four constituents of healthy aliment; these are the aqueous, the saccharine, the albuminous, and the oleaginous. Milk is a good sample of a perfect life-sustaining food, being composed of water, sugar, albumen, and oil. Now it must be evident to everyone that as a large portion of our bodies (four-fifths) is composed of water, which is constantly passing off in the form of vapour, our food must contain a due proportion of the aqueous element. The albuminous portions of our food are economised for the purpose of building up certain tissues, such as the nervous and the muscular. The oleaginous are indispensable as heat-givers, and also to help to nourish the tissues, and keep up animal

force and motion. The sugars and starches, on the other hand, are wholly heat-givers. In addition to these, various salts are found in the blood, which must be supplied from the food partaken of, and the supply must be constant, owing to the fact that the body is continually parting with them, and because they enter into the formation of bone, muscle, and nerve. The salts I refer to are the chloride of sodium, or common salt, and various phosphates which fortunately are plentifully found in the bread we eat, and in vegetables, hence the value of the latter. I ought also to mention what are known to physiologists as the *complemental foods*, such as coffee, cocoa, tea, &c. Taken in small quantities, these are said to hinder the destructive assimilation of tissues, and their use—not abuse—not only comforts and calms the mind, but also renders all kind of labour less fatiguing than it would otherwise be."

Corpulency or obesity, as we medical men prefer calling it, is looked upon now as a disease. You have heard of Banting. Here, then, is Banting in a walnut-shell: Partake of just as little fluid of any kind as you can with comfort, avoid sugar or molasses, fat meat or butter, pastry or potatoes, bread, or milk, or beer. What, then, are you to eat? you ask. Let your breakfast consist principally of animal food, cold meat or lean chop, kidneys or broiled fish, with just one small biscuit or slice of toast, or a crust of brown bread, and tea minus milk or sugar. Let your dinner also be of meat or fish—I care not which you choose, if you avoid pork, salmon, mackerel, herrings, or eels; you may partake of any

vegetable except potatoes, and any kind of poultry or game, and, as at breakfast, a morsel of toast. A glass of sherry, or Marsala, or Madeira, or two or even three glasses of *good* claret are allowable, so too is a little tart fruit, but neither raisins, nuts, nor almonds. A small biscuit may be taken with your tea (again minus milk and sugar), and a little fruit if you care for it. Let your supper also be principally flesh, and drink a few glasses of claret. Watch your health and weigh yourself occasionally, and take as medicine once a day, on an empty stomach, and in a glass of water, a tea-spoonful and a half of sal volatile and fifteen or twenty grains of carbonate of magnesia. The reduction in weight should not exceed a pound a week.

CHAPTER V.

A FEW WORDS ABOUT ALCOHOLIC STIMULANTS AND TEMPERANCE.—TEMPERANCE CORDIALS.—FARM SERVANTS AND BEER: A COMPARISON.—THE ENGLAND OF THE FUTURE.—TEMPERANCE HOTELS.—TRUE TEMPERANCE.—DRINKS ON THE ROAD.—PURE WATER.—COFFEE.—TEA.—COCOA.—CHOCOLATE.—SODA AND MILK.—ÆRATED DRINKS.—WHEY AND BUTTERMILK.—OATMEAL AND WATER.

I MUST confess that the temptation to devote the whole of this chapter to a dissertation on alcohol and the temperance question is a very strong one. I must and will resist it, and another day, and in another place, I may seek an opportunity of venting my opinions on this subject, which is one not only of individual, but of national, importance.

I speak as a medical man, when I say that alcohol should not be used at all, unless for the benefit of the health of the partaker, whether as a medicine or as a food. If as a medicine, it should only be prescribed by a physician; if used as an addition to food, it should never be forgotten that one of its greatest dangers lies in the fact that it is liable to be abused, and if there be the slightest inclination to excess, it had better far be done without.

I am talking now of the moderate use of stimulants, and earnestly advise all *young* men to abstain. Older

men may use alcoholic stimulants with safety *only* with the latter meals of the day, or occasionally after, but not during great exertion. The practice of taking alcohol, however much diluted, on an empty stomach, is injurious in two ways; it irritates the mucous membrane, and excites the flow of gastric juice, which had better been conserved until the meal time.

Nervous people, or those who are easily excited, should never touch alcohol in any shape or form. Narrow-chested people should also abstain, for, whether by its paralysing action on the lung tissues or not, I do not pretend to say, but there is no doubt that all alcoholic stimulants tend to decrease the vital capacity.

Those who use stimulants with food ought to be very careful about their quality. Spirits of all kinds in this country are vilely adulterated, whiskey and gin being probably the purest. Wines are seldom to be trusted to. Sherry is dangerously "fortified," not with pure cognac, but with cheap raw-grain whiskey.

As for cognac itself, you never get it good or genuine at hotels, and seldom from wine merchants, unless, indeed, you pay a very high price for it. Burgundy suits some, Sauterne is a good wholesome summer wine, and so is good claret. Claret-drinkers ought to buy their wine in small casks, and bottle it off into small pint bottles, which would represent a fair dinner allowance. Some of the light Hungarian wines are to be recommended.

Beer and stout, if they can be got good and not acid, are about the safest stimulants a man can use.

As for ginger cordial and the various so-called temperance wines, the least said the better: I've seen innocent country girls, at fairs, recklessly drunk from using them.

The room where I am just now writing overlooks a large farm-yard in Berkshire, and twenty men and women have been at work there, with a steam thrashing mill, all the morning. It is a lovely bracing day in October, neither cold nor warm, but, nevertheless, I cannot help noticing that, after every spell at the mill, these twenty men and women retire to the lee of a bean-rick, and drink all round some horrid brown fluid out of a horrid stone jar. This is called, by courtesy, beer, but it had better be named vinegar fortified with alcohol.

Now, up in the North of Scotland the same number of men and women would labour from week's end to week's end, and drink only whey, buttermilk, or water, yet turn out far more work than this beer-swilling mob does. Moreover, as these Aberdonian fellows work they talk, and laugh, and joke, and sing. Among this crowd here the thing most observable is a sort of loutish, heavy-headed sadness, and their jokes, when joke they do, are coarse and vulgar Supposing we brought over twenty Aberdonian farm servants here, and, giving them a long, stout rope, let them engage in the tug-of-war with the Berkshireites, do you know what would happen? Why this: The Scotch lassies alone would pull the English lads on their beam ends,

and the Scotch lads alone would run away with the whole twenty, singing as they went.

It may be new to some of my readers to be told that the country servants in the North get no beer. But you say they drink whiskey. Let me tell you—and I can prove it—that, as a rule, they do nothing of the sort, *but* probably once in a month a party of these braw chiels may foregather at the village inn, then, I allow, they drink naked whiskey *galore.* Aye, one man will drink more—and walk home afterwards—than would lay an English employé up for a month. That only shows his strength and his brawnness. If you speak to him about it he will reply, "Well, I take a dram at a time and have done with it, but I'm no for ever bibblin' beastly beer, like the pluffy-cheeked chaw-bacons in England."

These facts prove that an occasional "bout" of drinking is not nearly so injurious to the livers and lives of the subjects as is tippling.

Well, cyclists of all men or classes of men I do honestly believe are the most temperate; but here is an experiment I should like, if some among them who are moderate drinkers, and who probably "go in" for an occasional "roist," would try.

Let them test their vital capacities with the spirometer, then abstain entirely from all stimulants for a month, taking plenty of exercise meanwhile, and plenty of good food and fresh air. At the end of the month let them again apply the mouth to the spirometer,

and they will be astonished at their fresh acquisition of health and strength.

Now, the time will doubtless come when this fair land of ours may well deserve the title of temperate England. There are many forces at work tending to bring this hoped-for time round. The good sense of the people themselves, the crimes and misery untold that immoderate drinking leads to, and the better education of the masses all work together for the same end, while last, but not least, comes the good work that temperance reformers are every day and every hour engaged in.

Those among us, however, who would wish to see the demon intemperance exorcised cannot but lament the want of sense shown by total abstainers of the more ignorant classes, both rich and poor, in flaunting their opinions so ostentatiously in the faces of those who differ from them. If they are total abstainers they ought religously to abstain from all appearance of cant, or anything likely to give offence. That they do not do so is well known in every country village, and their conduct is so inconsiderate as often to cause them to be hated as hypocrites. This should not be so. A temperate life means a happy life, if there be health with it; in the name of all that is mysterious, then, why should the ignorant—rich or poor—abstainer feel it incumbent upon him to walk about the streets wearing a face like a Pharisee's, and why should he be so often found with words of all uncharitableness on his lips? Answer ye who answer can, for I give the question up.

Now, when cycling, I know a great many men who would prefer going to temperance houses if they could find the same comfort and conveniences they get in hotels. My own experience is that, generally speaking, you do not, and so I for one avoid them, and until there is reform I advise others to do so also. There are many good exceptions I know, but this only proves the rule. I have very unpleasant recollections of a dinner I had in one last summer. The place looked nice from outside, but at the threshold the niceness ended. The furniture of the dining-room was nearly new, cheap and flashy; the place smelt fusty; the windows were not open, and I doubt if they had been since the house was built; the stairs that led to the lavatory were uncarpeted and smelled of cats; the lavatory itself was dusty, and cried aloud for disinfection—I was glad to leave it. I fancied a steak with greens, potatoes, coffee, butter and bread. The bread was new, the butter old, the coffee an insult—essence of coffee mixed with lukewarm water—the potatoes were good, but the greens were "mushed," and as for the steak—well, I did not want to make hinges for a gate, but if I had wanted to do so I should have put that steak in my wallet. As it was I gave it my Scotch terrier; he is dead game, and stuck to it.

We cyclists must eat somewhere; if we do not eat and eat well and judiciously, we cannot have health upon wheels, so landlords of hotels cannot be too good

to us. Good treatment is not thrown away on a wheelman. It is like mercy—

" . . It is twice blessed—
It blesseth him that gives and him that takes."

Cyclists are seldom or ever hard drinkers. I earnestly advise hard drinkers, therefore, to become cyclists if they wish to find strength to leave off this bad habit. I found the following lines some time ago in an old magazine, dated seventeen hundred and something. There is so much truth in them that I cannot help giving them space:—

"DRUNKENNESS—IN TWELVE LINES.

" 1. Drunkenness expels reason.
" 2. Drowns the memory.
" 3. Defaces beauty.
" 4. Diminishes strength.
" 5. Inflames the blood.
" 6. Causes internal, external, and incurable wounds.
" 7. Is a witch to the senses.
" 8. A devil to the soul.
" 9. A thief to the purse.
" 10. The beggar's companion.
" 11. The wife's woe and the children's sorrow.
" 12. Makes a strong man weak and a wise man a fool."

Before I quite quit the subject of temperance, I would beg to remind my readers that there is such a thing as intemperance in eating as well as in drinking. It is far more common, and only one degree less hurtful

to the health, or militant against the chances of long life.

The truly temperate man is he who is temperate in all his doings, and actions, and pleasures, and moderate in his language and in his desires. And this *temperentia in omnia* is the only kind of temperance compatible with real health and enjoyment.

* * * * * * *

In summer weather, when riding, it often becomes a question with the cyclist what he should drink. Mind, I do not think that if a man is in really good form, and, therefore, does not perspire freely, he needs to drink much of anything whilst on the road, and that to a certain extent the less he drinks the better.

Pure water is very good, if not, indeed, the best drink. It is not safe to drink it quickly if the body be warm; it does more good if sipped, and especially if held for a moment or two in the back of the throat. Good water can generally be found when one is riding; that from a spring or pump well is the safest, and usually the purest; river water comes next; stagnant water of any kind is dangerous. Thirst may often be allayed by sucking acidulated drops. Doing so also tends to keep up the strength, and owing to the saliva swallowed it also aids the digestion of the food. I have known dyspeptics benefited by the habit of chewing green rushes on precisely the same principle.

Oranges, and various other kinds of juicy fruit, are excellent road companions and thirst banishers, but

those who suffer much from thirst ought to be careful to eat but little salt with their food, to be sparing in the use of spiced dishes and condiments of all sorts, and they ought never to eat too much at a time.

Coffee.—This is a most refreshing beverage for the cyclist, but the great difficulty is in getting it good, or in getting it at all, without having to wait a quarter of an hour for it. At cycling houses, at all events, it ought to be kept ready, and the same may be said about tea. Immediately after either is made, it should be poured off the leaves or the grounds. It will keep good, cold, in jars, for days, and may be heated in three minutes, over a spirit or gas stove.

Tea, whether cold or hot, is by far and away the best drink a man can use on the road. There is no occasion to have it too strong, indeed it is better rather weak, but it is most refreshing, most exhilarating, and people who tell you it is bad for the nervous system are only those who were never themselves possessed of any nerves worth mentioning.

Cocoa—not the starchy kind—cocoatina, and chocolate is a good drink, and it is nutritious and supporting, though not as exhilarating as either tea or coffee.

But I would infinitely prefer cocoa to soda-water and milk, *if* I could get it at a house as easily.

Soda-water is so absurdly expensive that I much prefer drinking from a pump or roadside well. If it possesses any virtues, they depend upon the carbonic acid contained in it, this makes it palatable and soothing

to a heated stomach. Do not fortify it with spirits. Spirits do not keep up the strength, and they cool the blood, and render one more apt to catch cold. In my voyages to the Arctic regions I have had ample opportunities of proving what I assert.

Soda-water and milk is supporting and cooling, but I cannot say I am much in favour of the beverage. There is one thing to be said in its favour: you have not to wait long for it.

Sherbet Powder is a handy thing to carry. You have only to fill your portable tumbler at a pump well, add a teaspoonful of the powder, and you have a drink that is more wholesome than the soda-water you usually get on the road.

Ginger-beer, or ginger-ale, or ginger in any shape is deleterious. The stone bottles are the best. I have this to say for one half at least of the aerated drinks you get at roadside houses, they are impure, and dangerous to health. I, of course, except those made by such firms as the Kinmonds, of Leamington.

Tonic Drinks.—Be on the safe side. Avoid them all. When the days of fair play in advertising arrive, as come they must, dealers either in drinks or quack pills will be pretty severely dealt with if they attempt to puff their poisons. It is sad to think that, as the law stands at present, murders may be committed wholesale by means of fraudulent advertising, and a quack doctor may build a mansion, figuratively speaking, with the bones of wretched victims.

Whey is better than milk as a cyclist's drink. Buttermilk is cooling, wholesome, and invigorating. Pity it is that we cannot get either of these on the road. But we can drink them at home, and those who can obtain them ought to prefer them to almost anything else.

Scotchmen in olden times used to go to war against the English with a pockful of oatmeal on their backs; each man was his own commissariat, and history tells us how they fought. We cyclists might, to a certain extent, follow their example. A little finely-ground oatmeal is easily carried, and a teaspoonful or two mixed in a tumblerful of cold water quenches the thirst, cools and supports the system, and puts life in every vein. Try it if you do not believe me.

Of course, no one thinks of drinking beer when on a long journey, unless perhaps just at the last mile or wo. Well, here is a hint worth holding—a spoonful of oatmeal is a valuable addition to a glass of bitter beer.

But one has to be very cautious as to the quantity he drinks while on the road, and never at any time should a cyclist drink much while heated, if he would retain a healthy skin and freedom from unsightly eruptions on the face and neck.

CHAPTER VI.

COMMON-SENSE ADVICE ON TRAINING AND EXERCISE.—WEAKLY LADS AND CYCLING CLUBS.—EXERCISE AND MUSCLE.—RECORD MAKING.

WHOEVER reads this chapter with the hope of finding therein specific rules laid down, and specific directions given on the subject of athletic training, as it is called, will be disappointed. The best and cleverest man in the world, when writing on this matter, can only generalise. Men are not all made in the same mould. There are different temperaments and different idiosyncrasies to be considered, to say nothing about age and constitution. Modern trainers know this right well too, although the ancients did not, and young men who wish to train for the purpose of making records or racing, either on the tricycle or bicycle, cannot do better than put themselves for a time under the care of one of these Young men, however, must not be rash, they must give their trainers fair play. Trainers cannot work miracles, they must have something to go and come upon, they must have men with fairly good health and substance to begin with, and no one in a state of chronic illness, no drunkard, no debauchee can

expect good to follow a course of training, until it has got his body and system in a state of preparation for it. This preliminary preparation cannot be effected without some self-sacrifice, and a determination well sustained to live in accordance with the laws of health. But training itself, it may well be said, is but little more than living rationally, temperately, and judiciously. True, and the "little more" would include harder exercise than usual, taken under the guidance of a man of sound common sense, who has not only studied a little anatomy and physiology, but who has had practical experience in the work he professes to be able to perform. No theorist, no mere essay writer could ever make a good trainer, any more than book reading or attendance at lectures could make a good physician. Indeed, were I laid up with an attack of, say, rheumatic fever, I would prefer a doctor to attend me who had himself gone through the same ordeal.

I may here observe parenthetically that many people put themselves under a species of hard training, with a view perhaps of doing something wonderful on the cycle, who are no more able to bear it than a spider's thread is to support a pound weight. I have known old men do so, and perform feats of derring-do on the tricycle, that made them believe they were young again, though it did not deceive anyone else. They forgot that their tissues were no longer elastic, nor their sinews and joints so supple as in the days of yore. But mere boys of, say, fifteen or sixteen, pale-faced, thin-legged, and often

hollow-eyed lads, are too often guilty of the same folly, to the detriment and sometimes everlasting ruin of their constitutions. The ambition to become athletes, win races, and make records is paramount in their minds. Any boy who has a sound constitution *may* become an athlete, but he ought to remember that athletes do not grow up in a single night like the *agaricus campestris*.

I have been living for the past three or four years near to the great highway between Bath and London, and on that road I ride a good deal. I have, therefore, had plenty of opportunities of studying the physique of the "men" who are constantly moving up or down, singly or in clubs. Well, a weakly or growing lad, if by himself, may take his time, and rest when he chooses, but the spirit of emulation prevents him from falling behind, if he is riding with his club. He may have to spurt and spurt, but he *will* keep up, although the heart may be so overstrained in the effort, that his prospects of future health must be seriously injured. There is hardly a club that I meet on the road that does not number in its ranks one heroic but suffering weakling, whose flushed perspiring face, nervous voice, and semi-hysterical laugh speak volumes to one acquainted with nearly every phase of frail humanity.

Clubs, I own, have their uses, but no youth ought to join one unless physically fit, and fathers should see to this.

Now, although I do not intend to go very deeply into the subject of training, thinking it more desirable

to refer the would-be athlete to the many excellent handbooks written on that subject, still the few common-sense remarks about exercise, &c., which I shall make, will, I feel sure, be taken in good part by either my lady or gentlemen readers, for I should like to believe I am being listened to by the fair as well as the dark sex.

[The sentences within inverted commas, I may as well mention, are short extracts from my own lectures or medical magazine articles.]

We very often hear it said that, although bicycle riding is quite an art, anyone can ride a tricycle. Under this impression many people have been known to invest in a good three-wheeler, and finding it did not come up to their expectations, that after two lessons they could *not* mount and ride twenty miles without fatigue, get sick of it in a week and sell off. No one can learn to ride comfortable in one day, nor in ten. But practice makes very perfect.

The mistake that ladies more often than gentlemen make at first, is trying to do too much.

Now let me advise beginners who wish to adopt this most charming and seductive form of exercise for the purposes of health and recreation, to begin with moderation, until the muscles of the limbs are once formed to the work, and the feet touch the treadles as naturally as do the fingers of an accomplished violinist the strings of his favourite instrument.

For, remember—and this is axiomatic—the stronger

you are while riding the more you will enjoy the exercise, and the better will it be for your health and constitution.

Exercise and Muscle.

Very many people have erroneous ideas about muscle and about condition. We very often hear the remark with reference, let us say, to our friend Mr. Smith, "What a fine man he is!" The compliment generally emanates from a lady's lips, but you and I know that, although to all appearances a fine man, handsome, and with lots of bones and lots of beef, he is really not worth anything for a day's sport. His legs may be thicker than yours or mine, but what do they consist of? Adipose tissue, covered and interlarded with fat. As a Christmas ox he would have excelled, as a human being he is somewhat of a failure. The very flesh with which the fat on his body is mixed is but poor stuff, and probably the heart is flabby or fat, and he is deficient in what is commonly called bellows power. Fine men, like Mr. Smith, have no stay, they are more subject to colds and inflammation than your wiry hard men, and when disease attacks them they are apt to sink under.

It is not a good sign, it is indeed a suspicious one, if a man scales much over what is recognised as the standard of weight with reference to inches. And of course the reverse is true. The following table of normal weight in proportion to height was drawn up by Dr. Hutchinson, and may be of interest to some.

The man is supposed to be weighed in his clothes, which average about an eighteenth of the weight of the whole body.

Exact Stature.		Mean Weight.				Weight increased by 7 per cent.		
ft.	in.	st.	lbs.		lbs.	st.	lbs.	lbs.
5	1	8	8	or	120	9	2	128
5	2	9	0	,,	126	9	9	135
5	3	9	7	,,	133	10	2	142
5	4	9	13	,,	139	10	9	149
5	5	10	2	,,	142	10	12	152
5	6	10	5	,,	145	11	1	155
5	7	10	8	,,	148	11	4	158
5	8	11	1	,,	155	11	12	166
5	9	11	8	,,	162	12	5	173
5	10	12	1	,,	169	12	13	181
5	11	12	6	,,	174	13	4	186
6	0	12	10	,,	178	13	8	190

The last column in this table shows the weight to which a man of given height may reach without his vital capacity being diminished, or respiration interfered with in any material way.

I must now beg the reader kindly to follow me, while I give a very simple description of muscular tissue. Muscle is simply flesh, to begin with—flesh apart from fat, remember. With the involuntary muscles of the body I have at present nothing to do. I deal at present with those muscles we use in voluntary exercise—the biceps of the arm, which we all know, is a very good example of a simple voluntary muscle.

In the middle there is the red fleshy part; at either end it is sheathed in strong fibrous tissue, which ends in tendons; these tendons are fastened, the lower in the forearm, the upper in the shoulder. Now the lower ends of the tendons being fixtures, it is evident that if we shorten by nervous force the centre or fleshy portion of the biceps, one of two things must happen—either the forearm will be bent at the elbow, and the hand drawn towards the head, or, if the hand be clasping a beam over-head, the body will be drawn up towards this beam till the chin touches the hand. Now, if we examine the fleshy part of the biceps anatomically (or any other muscle, for that matter) we shall find it does not consist simply of a red homogeneous mass, but of a whole collection of longitudinal fibres, joined together by a cobweb-like tissue, called the areolar or connective. In these you have only to bear in mind that the minute or ultimate fibres of the nerves, and the extreme ramifications of the blood-vessels, are spread out, the arteries conveying to them blood for their nourishment, and for that of the nerves which supply them with stimulus to action. The action of a muscle is to contract; in a state of contraction each individual fibre of the muscle is shortened, and being shortened is thickened, and the ends of the muscle are consequently drawn more closely together. Now, to produce a healthy contraction of any muscle, three things are required—first, the fibres of the muscle must have an average degree of bulk or substance in them—that is, they must not be

attenuated; secondly, the muscle must not be clogged with fat, but possess merely enough of that substance around it to retain the animal heat; and thirdly, there must be sufficient nervous force. Now, while on the one hand we know that good health is conjugate only with a well-conditioned muscular system, it is pleasant on the other hand to remember that this can be attained by most of us by a course of carefully regulated bodily exercise; and also that the custom of taking judicious daily exercise has been proved, beyond a doubt, to tend to longevity.

Exercise, to be really beneficial, ought to be taken in moderation, and should extend over some considerable time. Spurts, and that amount of exercise that borders on fatigue, should mostly be avoided. Whenever the body becomes tired, exertion, instead of being any longer a tonic to the body, becomes a positive depressant, and results in evil, not only to the muscular but to the nervous system as well.

A course of exercise—say cycling—should be begun and carried on by easy stages, for if one does one's exercise as he would do a penance, depend upon it it is very far from beneficial. Never, therefore, try to do too much.

Exercise is a tonic, and therefore benefit is not to be expected from a single dose. Its effects are gradual, and it must be taken with studied regularity, day after day, at the same time, and if one is in ordinary health the state of the weather should not be permitted to

baulk him. During the summer and autumn months—a cyclist should be like the busy bee and improve each shining hour—he will thus lay up for himself a store of health that will stand good until spring-time comes again.

Exercise ought to be taken in clothes which are neither too cumbersome nor too heavy; and, if heated in the intervals of rest, be very careful you do not catch cold.

Work is not exercise. This may seem strange, but it is true. I tell my patients, "I do not care how much you run about all day at your business, you *must* take the exercise I prescribe quite independently of your work." There are perhaps no more hard-working men in the world than the Scottish ploughmen—wearily plodding all day long behind their horses, in wet weather or dry; no sooner, however, has the sun "gane west the loch," and the day's work is done, than, after supper and a good wash, those hardy lads assemble in the glen, and not only for one, but often three good hours, keep up the health-giving games for which their nation is so justly celebrated.

I have been asked my opinion, as a medical man, on record making. My answer is that at times record making may be dangerous to the record makers, although the condition in which Nixon arrived on his cycle at John-o'-Groat's would hardly seem to bear this out. But record making, albeit some men make martyrs of themselves at it, tends to the ultimate good of the riding

population. No man will attempt to make a record who has not a good machine under him. The record accomplished, not only is the man famous but the machine as well, and also the maker thereof. This stimulates competition, and we outsiders, who do not care to make records, reap benefit by having every year new improvements. That great and good hygienist, Dr. Richardson, does not hold with me in this view I know, and yet he seems to half believe that mastery of the art of flight may be the outcome of cycling. Depend upon it, if it ever is, it is to our record makers will belong the honour of having pioneered mankind to the glorious consummation.

There is one other good thing to be said for record making, it serves to keep up the national spirit of emulation, and keep high that indomitable courage, which is the birthright of every true-born Briton.

CHAPTER VII.

HINTS ON EXERCISE AND TRAINING CONTINUED. — PREPARATION FOR TRAINING.—BEST TIME FOR EXERCISE.—DIET.—SLEEP.—SLEEPLESSNESS. — TOBACCO. — MEDICINES IN TRAINING. — THE BENEFICIAL EFFECTS OF PURE AIR.

ELSEWHERE I have made the remark that "training," properly so called, is that process by which athletes, whether professional or amateur, endeavour to bring their bodies into the form and condition best suited for the performance of certain feats of agility, strength and endurance.

As a medical man I ought to be listened to when I say training is only free from danger to health and life when conducted with moderation, wisdom, and temperance. On the other hand, I do not advise any of my readers to go into training for the sake of scoring good records, but everyone between the ages of sixteen and sixty should, by taking daily exercise and by adopting a judicious mode of life, be able at any time to indulge in sport and pastime, not only without fatigue, but with positive pleasure.

To do so a man should be neither too fat nor too lean ; obesity is far more objectionable than what is

called spareness, for fat is apt to encroach upon and usurp the place of healthy muscular tissue, and constitute itself a burden both to body and mind.

Sports and pastimes in this country are happily both numerous and varied in character, and moderate and regular indulgence in them is of incalculable benefit to the health. They constitute a medical man's *beau ideal* of proper exercise, because, while engaged in them, not only are the muscles exercised, and every organ in the body regenerated by the pure life-giving blood sent in greater quantities through it, but the mind is exhilarated at the same time, care and worry and business are for the time being entirely forgotten, so that the brain is really rested and receives as much benefit by the pleasant respite, as it would from hours of healthy sleep.

Now, whatever amount of good is capable of being derived from sports and pastimes, the man who is not in tolerably good form is very unlikely to benefit therefrom. Before, therefore, making up his mind to enter upon a course of exercise of this kind, one ought to "train" so far as to bring himself into good, or at least fair condition.

I will briefly state how this may be done safely; but let me explain first the state a man's tissues are in, nine times out of ten, who is not in the habit of taking proper exercise. I do not care whether he be fat or lean, feeling healthy and comfortable, or quite the reverse; I say this, that he has no stay in him, and if put to the test this

would soon be found to be true. His liver cannot be in good working order, it must be incapable of eliminating the bile from the blood—I wish to steer clear of all physiological considerations for the nonce, and it is no matter to me whether the bile is secreted in the liver wholly or partially—if it be *not* secreted and excreted, the process of digestion is weakened, and the blood poisoned, and this, too, quite independent of the entire work that the kidneys and skin may willingly perform. If the digestion be weakened the blood, which is composed from the products of the food we eat, will not be pure; and for this reason, as well as from want of continuous action, every muscle in the body will get soft and flabby. The heart itself, being a muscle, partakes of the general slackness, and this accounts for men who are out of condition puffing and blowing on slight exertion.

This state of being "easily blown" is put down by trainers to a want of "stamina" in the lung tissue itself. Well, to be sure, when a man is not in form the lungs partake of the general weakness, but it is nevertheless more the heart than the lungs that is at fault, that organ being unable, when excited, to receive the blood back in sufficient volume from the organs of respiration, which thus get temporarily congested.

Walking is probably the best and safest means of getting into condition, aided, of course, by temperate living.

Before commencing a course of sports or pastimes,

then, whether that be cycling, rowing, or playing ball in any way whatever, let the would-be-healthy reader indulge in two or three weeks' walking exercise. Let no weather prevent him from taking his two good walks a day; let him dress lightly but warmly while doing so, and do his walk steadily, increasing the distance daily as he can bear it. His diet and sleep must be studied during this preliminary training, but he must never walk on a full stomach. He must eat only what he knows agrees with him, and not partake of too much at any one time.

Although walking is undoubtedly the best form of preparatory exercise a man or woman can indulge in, whose muscles have been for some time out of form, but who desire to become good cyclists, and reap benefit to the health from riding, still it may well be varied by driving, rowing, and more especially by playing such out-door games as occupy and exhilarate the mind.

The best *time* for taking exercise depends upon circumstances. Few of us in this work-a-day world have over much leisure, but most of us can afford the little walk or ride before breakfast, and the forenoon and evening runs. If at all weakly the morning outing, on an empty stomach, should, as I have said before, be a very short one, and the other spells of exercise must not be taken on an empty stomach, nor be too fatiguing.

Diet.—If one joins the glorious army of cyclists, with a view to improving his health, he must conside

regulation in diet of paramount importance. Hitherto, to change one letter in a well-known quotation—

"He may have *lived* not wisely, but too well."

He must now change all that. He must rise betimes in the morning. Seven in summer, or half-past seven in winter, is not a bit too early, for by the time he has had his tub and dressed leisurely, and enjoyed his morning breath of fresh air, the day will be one hour older.

I do not mind what he eats for breakfast, if he relishes it, and though making a hearty meal, does not exceed.

Luncheon should be light if he has to continue his work, and it will be still lighter and lie more easily on the stomach if he has neither wine, beer, nor spirits therewith. Especially will this be the case if his labours lie indoors, and if he is a sedentary man.

A man who works in the afternoon should prefer luncheon to dinner; this latter meal should be taken in this case about seven or a little earlier, and may be fairly substantial, and if stimulants must be taken now would be the time. I should add that it is the general opinion that beer is deleterious if one wishes to get into good hard form.

N.B.—I ought to say that the advice I am now giving is equally applicable to ladies, the word "man" being a mere verbal convenience.

Now comes the question of *sleep*. No one who does not enjoy a certain number of hours of refreshing

slumber nightly can long remain in good health. And very often, if a person has been living too indulgently for years, and, warned by premonitory symptoms of failing health, determines to change his mode of life for the better, he finds the greatest enemy to his chance of reformation to be sleeplessness. For nights he tosses about on an uneasy couch, wakens too soon in the morning, or at all events wakens unrefreshed.

What is he to do in this state of affairs? He sees himself getting visibly thinner, and crows'-feet crowding round his eyes. Shall he give up all his good resolves, or shall he have recourse to narcotics? My advice is—do neither. Get up in the morning at the usual time, look upon the cold tub as really a friend in need, take as much exercise as possible all day, and keep as much as you can in the fresh air, for the brain is really in a semi-congested condition, and pure air—oxygen—is the *only* remedy.

Against the use of narcotics for the purpose of producing sleep when the brain is in an exalted condition and the nerves unstrung, I cannot speak in language too condemnatory. To take chloral means suicide, opium is nearly as bad, and even bromide of potassium is a much-abused medicine; it never fails to leave behind it traces of brain and nerve mischief. Use no narcotics then, not even alcoholic—though that is the safest. Abjure them all and sound sleep will return to your pillow far sooner without them.

But those who are what are called "bad sleepers"

ought to retire somewhat early, and should beware of any kind of excitement previous to betaking themselves to rest. Meditation is the best narcotic. But if after trying for some time one finds it is really impossible to sleep, it is much better to relight the candle and read than toss about and think.

The bed itself should be rather hard than otherwise, the clothes light but warm, and the pillows rather firm but yielding.

If there be acidity of the stomach a small spoonful of carbonate of soda, mixed in a tumblerful of water, should be taken about a quarter of an hour before lying down.

Going to bed with an entirely empty stomach is not conducive to sound sleep. If a person fails to sleep before two or three he ought to get up, and, if possible, eat a luncheon biscuit and drink a few mouthfuls of milk or water. I often advise those who suffer much from insomnia to take either a cupful of beef-tea, with a morsel of biscuit, or an egg, beaten up in a little milk, about three o'clock in the morning, if sleep seems to have forgotten to visit them. Lying awake in bed is very debilitating to the nervous system. As a last resource, a glass of wine may be taken with a little food, or a pipe of tobacco smoked. Or, if some prefer it, a glass of sound beer, but the alcohol stimulant should not be taken if it can be dispensed with, as it often excites the brain and makes matters worse.

Tobacco.—The less a man smokes when getting into training the better, yet, after considering the matter in all its bearings, and taking the *pros* and *cons* together, I cannot condemn the use of smoking, so long as the bounds of temperance are not exceeded. I do not like to see a pipe or cigar in a man's mouth before breakfast. It tells tales of shaken nerves and a congested brain. I may add that I do not like to see a man drinking tea or coffee of a morning before eating. A cup of either beverage is a luxury about bathing time, but if one is in good form when he sits down to breakfast, it is the solids he will look after first.

Medicines in Training.—Tonics are sometimes useful. The most simple are the quinine and iron citrate dilute phosphoric acid and bark tincture, if nervous system is excitable ; dilute nitro-hydrochloric acid and bark, if the liver is supposed to be out of order. Quassia is a capital tonic for those who have been free livers. It is better to take tonics in small doses than in large, and to take them a dozen times a day instead of three, *i.e.*, to divide the day's dose into twelve equal portions and take one frequently. It should not be forgotten, however, that tonics may do more harm than good, if the system be not open, and it is a good plan to take a couple of antibilious pills once a week, whether or not, as the majority of tonics have a tendency to constipate

Pure Air.—It would be impossible for any medical

man to overrate the benefits to be derived from breathing only pure fresh air, and just as impossible to overestimate the evils that arise from the want of it. If a person wants to be robust, healthy and strong, he cannot spend too much time out of doors. It would be superfluous to tell the reader that pure air is one of the necessaries of life, but I may remind him that it is one of the best curative agents in one form or other that physicians possess, and that diseases, even consumption itself, will often yield to its influence, although defiant of all other treatment.

We cannot live too much out of doors if we would be healthy. This is true; but it is also true that the state of the air in most of our houses by night and by day precludes the possibility of life therein, in the true sense of the word. We do not live in our houses, we simply exist. The bugbear cold shuts the doors and hermetically seals the double windows of many of the best houses in town and country. The air we breathe indoors is seldom or never pure; it may support life after a fashion, as muddy water will the life of a fish, but that is all you can say of it. It may not of itself be positively poisonous, but it is nevertheless often eminently well suited to the propagation of the germs of disease. It is on foul and unwholesome air that these live and multiply. It should be remembered that the obnoxious gases emanating even from sewers are not *per se* capable of breeding fever when breathed, but it is in them that fever-germs float and live; they

are to these germs what the soil around it is to the plant. It is for this reason among many others that the sense of smell was given us, to enable us to distinguish between what is poisonous and what is wholesome.

The olfactory nerves, for example, seem to get inured to unwholesome air after a time; or, what is much the same, the brain becomes incapable of taking cognisance of the impression. A person may be sitting in a room or railway-carriage, and feeling rather comfortable than otherwise in an atmosphere that a person coming directly in from the fresh air finds suffocatingly unwholesome.

I have used the words "rather comfortable" in my last sentence, and if we were to analyse the feeling of comfort which some people enjoy in bedrooms in which a fire or a lamp is burning, and all fresh air excluded, we should, I think, find it very illusory indeed. It is occasioned partly by warmth and partly by the amount of carbonic acid gas in the room, which being inhaled acts as a narcotic upon the blood and nerves. Carbonic acid gas is certainly a narcotic, but it is a narcotic *poison;* it is this that kills many infants who are found dead beside the nurse and are said to have been overlaid.

The windows of a bedroom should be open all night in summer, my own are open all the year round, not a little way open merely, but generously wide.

Curtains round a bed are most objectionable; so is burning lights all night, for they use up the oxygen. A better system of ventilation in our houses would

work wonders in the health and strength of the population, and lessen the death-rate from many diseases that are now rampant in our midst.

"Oh!" someone may say, "I know the value of fresh air, but I could never stand my window open all night, I should be afraid of the draught."

But it is a well-known fact that a window may be opened wide without fear of cold or draught, if the space be covered with a wire-gauze screen or piece of perforated zinc. This should be borne in mind by those who wish to awake of a morning feeling refreshed and comfortable instead of tired, and jaded, and sleepy.

CHAPTER VIII.

GOOD TIMES COMING FOR CYCLISTS.—HINTS FOR AMATEUR CYCLISTS.—COMFORTS ON THE ROAD.

"But better times are coming, boys,
Better times are coming,
For trials past to make amends—
Yes, better times are coming."

SO runs the refrain of a good old song, that, sung to a brave old tune, has often cheered the heart of the emigrant sailing away from England to seek for fortune in sunnier lands beyond the seas.

We cyclists may take comfort from it also, for, without expecting the speedy advent of the millennium, we may rest assured that, unless this fair island of ours is shaken out of all shape by some of these vagrant earthquakes, there are better times in store for us.

We are every year being tempted to buy easier, faster, and better machines: we are having improvement after improvement in bearings, in springs, in tyres, seats, and saddles, in mechanism itself, and in lightness and strength. Indeed, as regards the machines themselves, I should not be surprised if, in a few years, a bicycle be invented that one can fold up as easily as an umbrella, and sling, rifle fashion, over the shoulder while climbing mountains or fording streams.

Every year, too, more and more cyclists are appearing on the road. Before long it seems to me that everyone between the ages of nine and ninety will ride a machine of some kind.

I have an old neighbour who scored 87 last fall; while admiring my "Salvo," the other day, he made the following remark:—

"You go along singing on it. You're always singing; it must be very easy. I wonder if I could work one of them?"

I really believe he could if it were not for his feet, but he is gouty, his lower extremities are of a coffee-pot build, the thick ends below, and his feet are as large as lexicons, so the "Salvo" treadles would want some slight alteration.

Yes, everyone will ride eventually, young and old, short and tall, the fat kine and the lean kine, the maim, and the halt, and the blind.

"The *blind!*" you exclaim.

The blind, I repeat. The blind will ride on sociables, side by side with men who see. If I had a blind brother or sister, I would delight to take her out for a ride. I'm not sure I wouldn't even take my mother-in-law out if she were blind.

Well, when cycling becomes more universal, the roads will once again be kept in a state of good repair, as they must have been in the old coaching days. Steam rollers will find their way far into the interior

of the country, and the old-fashioned rural hostelries of merrie England will flourish green again. One will be able to get a decent bed and a well-cooked dinner even in the remotest nooks of England. Bagmen will be of no account in these coming days unless they bike or trike; even in this happy time it may still be possible to trace the words "Commercial Room" on the dingy door of some smoke-begrimed dining-room, but the best rooms in the house will all be in the cyclists' suite.

Sociables will be far more common in future than they are now. Sociable riding is a system of strength co-operation which is only in its infancy. We must have suitable sociables for parties of four, or even six. I am not aware that there is a sociable club, but there ought to be. I am not much of a mechanic, and I may be wrong, but I labour under the impression that a sociable seated for four could be made lighter than two ordinary sociables.

In the not very distant future, there is little doubt that every wheelman will have to pay a license or tax of some kind. I am not suggesting such a tax. Goodness forbid! But at the same time I must be permitted to say that I myself would not object to pay five shillings a year, if the Government would undertake to keep the roads in first-rate repair. At present, during the metalling season, they are simply a disgrace to any civilized country. Every parish, I believe, keeps up its own morsel of road; the gravel and stones are thrown

down anyhow, and instead of being properly rolled down to an even surface, the road is left in the rough to be trodden smooth by the feet of unhappy horses. No wonder that cyclists avoid the newly-metalled portions of the roads and take their traps on to the footway. I always do, and always shall, till the reformation. If I am fined some day—well, with the most abject respect for the law and the powers that be, I shall just do as the wonderful cork leg did, I'll "get up and go on as before."

Meanwhile, the better times are still on ahead—the roads are not kept like garden paths, the houses where comfort and a good *cuisine*, combined with moderate prices and civility, are to be found, are few and far between; it behoves wheelmen therefore to make the best of everything, and to neglect nothing that may tend to make their tours and journeys as pleasant as pleasant can be.

The following hints, then, may be useful to the amateur cyclist. They are mere reminders, and not warranted by any means complete or perfect. I may also add that in writing them I have the tricycle more fully in view than the bicycle, because it is more of a weight carrier, and more suited, I think, for comfortable touring where speed is no object:—

I.—THE CHOICE OF A CYCLE.

(*a*.) Do not be in a hurry to purchase early in the year; wait till, say, the month of April or May.

The new improvements will be all out for the year by then, and you have still a fine season before you. Buy a new cycle. Do not bother answering advertisements; you do not know what you may get, or with whom you may be dealing.

(*b.*) Some weeks before you purchase, get a cycling journal or two, say *The Cyclist* or *Tricyclist*. Opinions are therein ventilated, and you learn a deal about the sport that your own experience would never teach you. You will also be able thus to make up your mind as to what kind or class of machine you should like, and can put yourself into direct communication with the makers.

(*c.*) I myself ride a front-steerer. I like it better than a rear, but there are, of course, many good rear-steerers. I like tall wheels and a well elevated seat, so that I can see over the hedges.

(*d*) I like the band brake, because I think it is safest, although, for that matter, I seldom use it at all; indeed, except when going up or down hill, I don't know that I use anything much except my legs. I do little else, for I mostly steer with my right knee; hands in pockets is my favourite position, unless when reading a book, for my old "Sal." and I are very excellent friends. I would as soon want a fiddle as want a tricycle, and that is saying a very great deal.

(*e*) I believe a good saddle is better than a seat, but as I do all my lighter literary work out of doors, in quiet country lanes, or in fields or commons, I find

a seat more convenient—I can work more easily on it, and stow my portfolio under the cushion.

(*f*) Ball bearings, (*g*) good pedals, and (*h*) a foot-rest are indispensable to cycling comfort, and the better the *tyres* the more easy will the journey be.

(*i*) Get as light a machine as possible, but remember that strength must be combined with lightness.

(*j*) You must have good lamps. Not one, but two, if for a tricycle. If on a tricycle you have but one light on your fore wheel, a trap coming up may mistake you for a bicyclist and not give you room enough. Then an ugly spill would be the result.

(*k*) A good gong is also indispensable, or a bicycle bell. A whistle is an abomination. Bugles ought to be used by clubs, but the bugler ought really to take lessons in the art of blowing. Most of the buglemen who belong to the clubs that pass up and down our road emit noises that an old asthmatical gander would be ashamed of.

(*l*) As lubrication is a very important thing if you would ride easy, get a machine with the best style of lubricators possible, or you will have constant annoyance.

(*m*) Before starting on a ride, have a look all over your cycle. See that it is perfectly clean, that it has been well oiled and moves free and easy, and that every nut is taut. Do not forget, if your machine is a tricycle, that the pedals want oil, and also the whole of the steering gear.

(*n*) Do not go on even a short ride without a few handy tools in your wallet. A small leather pocket, like those made by Lamplugh and Brown, of Birmingham, should be attached behind the tricycle. This is to hold only your tools, your cotton rag, some copper wire, some pieces of stout string—in case of unshipping a portion of the tyre—and your little oil flask. A good double-bladed knife is also an acquisition to the wallet.

II.—COMFORTS FOR THE ROAD.

For a tour of a few days—and how delightful these tours are only those who have tried them can tell—there are many other things you want to take in your knapsack, bag, or basket. Every rider will know best what he needs for his comfort. I, myself, have a waterproof covered basket, and it holds all I want on the road for days; but fewer articles would do, I daresay.

(*a*) A small portable Turkish bath, that goes easily into the bottom of the basket. It was made by the firm of Allen and Sons, Marylebone Lane, Oxford Street, London. It is quite a *multum in parvo*. By its means I can not only have a Turkish bath in my own room, but I can make tea, boil eggs, fry eggs and bacon, make a soup or make a stew, or anything I may want by the roadside. The lamp contains a large supply of methylated spirit, and the whole is most compact. It also contains matches.

(*b*) A good rough towel and a sixpenny cake of Pears' unscented transparent soap, which is by far and away the best for the skin that has ever been invented.

(*c*) A sponge.

(*d*) A tiny dressing case, which includes a small bottle of chlorodyne, which might be useful; pins, needles, &c., and extra boot-laces.

(*e*) Luxuries, in the shape of a favourite author or two, and half-a-pound of *chocolat menier*, an ounce of which I often prefer to lunch, especially if I can have a glass of milk to wash it down; also some good Indian tea, and sugar.

(*f*) A portable drinking cup.

(*g*) A change of underclothing, including two pairs of stockings.

(*h*) A very light waterproof.

(*i*) A very light muffler.

(*j*) Some collars, cuffs, and fronts, and an entire set of shirt studs and links.

(*k*) Writing materials.

My umbrella is carried in its place on the cycle, and thus buckled and accoutred I can face anything in reason.

CHAPTER IX.

How to ride.—Hints about clothing.—Care of the feet.

WE will suppose that the amateur has now procured a tricycle or bicycle to his satisfaction. He must next learn to ride. Though I have ridden the bicycle, I must refer the reader to a teacher if he wants to learn it. My teacher was experience, and a rough one he was. But the tricycle better suits my title, "Health upon Wheels." Read this:—

> "H. R. Reynolds, who had never previously ridden a tricycle, and who states he found it much easier than he expected, rode a borrowed 'Premier,' and, although he lost an hour by misdirection at Fareham, succeeded in covering 175 miles to Alton by 10.30."—*The Cyclist*, July 11th, 1883.

Pray, do not imagine it will be quite as easy for you—Mr. Reynolds is an accomplished bicyclist and an amateur. I do not write for such as he is, but for the general public.

From the very day you first mount, if you keep up riding daily, the body begins to acquire a special training. The muscles of the legs get harder, and the joints more supple, and at the same time you gradually get into the knack of riding without fatigue.

If you would not, then, affect your health detrimentally, go cautiously to work, and do very small journeys at first, and increase the distance daily, by slow degrees, as you feel fit. Sit gracefully and upright in the saddle or chair, do not sway the body about, but let the feet and legs do the work.

The power should come directly to the pedals from the front part of the foot, not from heel or instep. Be most particular how you paddle or pedal at first, for I have known of accidents happening from people having missed footing and fallen forwards.

Never ride far from home to begin with, but when you do so, choose a fine day with good roads. Avoid riding up any hill that "winds" you, or sets the heart beating too fast. This is most important. Whenever you feel tired, stop to rest. After a time both lung and leg power get increased, and the exertion that at first tired either becomes only pleasurable.

Clothing.—It does not matter a great deal what style or cut a man's dress is who rides a tricycle. But for sake of the sport, and to show he is not a "cad upon castors," he ought to dress like a gentleman, comfortably, yet unassumingly. If he belongs to a club he should wear the club uniform on all long rides; he will find it for the most part free, easy, and suitable.

(*a*) The coat: If it isn't an Irish bull, the coat should be a jacket, a P-jacket suits best, I think. At all events it ought not to be too loose, nor too long. The material may be tweed, dust-colour if you choose,

though this does not look nice. I, myself, wear navy serge. It should not be thick by any means. Thick cloth will induce perspiration, or a feeling of tightness and oppression. A waistcoat may be worn towards evening, by day it is best carried in the basket. There is no need to have a large display of watch-chain, and gold rings on the fingers do not conduce to health, and are often in the way.

(*b*) The nether garment should be knee breeches by all means, but they need not be unreasonably tight, unless you have a wonderfully well-formed leg, and want to show it.

(*c*) Stockings: These should be of Scotch wheeling worsted. They cost 5/- a pair in Aberdeen, and will wear a year and longer. They are hand-knitted, and never stretch, as most English-made stockings do.

Gloves: Kid gloves or dogskin should be worn, unless the hands are preferred bare. Gauntlets look well on the bicycle, but they are unnecessary on the trike.

(*d*) Head-dress: A soft felt hat is easy and comfortable, and suits most faces. A straw hat is also nice for summer, and, if a guard is worn, it will not be lost. A light helmet looks pretty, especially with a sun veil behind. Thé little Scotch bonnet, called the "Glengarry," is very nice for winter wear. It has one advantage—it is wind proof. The rider himself, machine and all, may be blown over a railway bridge,

but the "Glengarry" will stick to his head like a Dandie Dinmont to a mutton bone.

(*e*) Boots or shoes: I much prefer the latter; they ought to be light and strong, with a air thickness of elastic sole. What is called the Scotch brogan is just the thing.

(*f*) Underclothing: Everyone over five-and-thirty should wear warm, thin underclothing, and even younger men will find it advantageous to have a merino vest next the skin, although he may not care for drawers. The shirt itself should be a woollen one, rather than linen or cotton. This will necessitate the wearing of fronts. Now, I know that paper fronts are not considered fashionable, but I know also that a paper front is the best chest protector that anyone can wear. So the cycling tourist has to choose between fashion and health.

Care of the Feet.—This, I think, is not an unimportant part of my subject, for comfort in riding will often in some measure depend upon the state of the feet, to say nothing about the fact that colds, lumbago, sciatica, and many other illnesses are often caught through the feet, some people being peculiarly sensitive in this direction.

We take a great deal of care of our hands because they are visible; we like to see them white, and even delicate-looking, but, so far as health is concerned, the feet are far more deserving of care and attention.

John Locke says: "Whoever considers how mis-

chievous and mortal a thing taking wet in the feet is, to those who have been bred nicely, will wish he had, like the poor people's children, gone barefoot; who by that means come to be so reconciled by custom to wet in their feet, that they take no more cold or harm by it than if they were wet in their hands."

The feet *must* be kept warm and dry. The stockings ought to be changed immediately after the day's ride. Although I recommend thick Scotch stockings for the road, when not riding the reader might do well to act on the following hints, which I gave in a magazine article :—

"We should not wear socks or stockings thick enough to cause our feet to perspire with the slightest exertion. Let the stockings, then, be only of medium thickness, but the softer and warmer they are the better. Hence I think that in winter we can derive the greatest comfort from socks of Shetland wool. In summer, again, the very thinnest of woollen socks should be worn, or, if you prefer it, silk; but few of us can wear cotton, and expect to retain perfect health. A lining sole of cork is a great protection from damp, if there be room for it in the boot or shoe. As to slippers, we should have a summer pair—I prefer a thin leather pump—and a warmer pair for winter wear.

"Those who suffer from tender feet should never sit too close to the fire, even in the coldest day in winter; and—N.B.—nobody else should.

"Now as to boots and shoes. They ought to fit

well, and still be easy to the feet; the upper leather should be soft and pliant, yet strong withal; and the soles hard and strong. Strong especially ought the soles of the boots to be for men who walk much; and such will find a very broad sole and heel a great comfort. Most people are liable to 'go over' the sole or heel in some particular direction. Well, these portions should in all cases be protected by a plate of brass. In winter men's shoes ought to be rendered impervious to snow by daubing or rubbing with tallow, appearance in this case giving place to safety and comfort."

In this same article I warn my readers against the use of goloshes or indiarubber soles. Indeed, indiarubber, in any shape or form, I have an objection to, and mackintoshes ought not to be worn a moment longer than is necessary.

Then, further on, I remark, concerning the nails: "Not only should they be kept perfectly clean, and neatly pared, but care should be taken to prevent what are called *agnails*—a ragged and painful condition of the skin of the finger adjoining the nail. This is very easily prevented by carefully pressing back, twice or thrice a week, that portion of the skin that overlaps the root of the nail. This should never be allowed to become adherent The toe-nails should be cut square across; the tendency to ingrowth of nail—too serious a subject, by-the-way, to treat here—is thus averted.

"Cleanliness of feet is most essential to health. people are too delicate in health to make use of

the matutinal bath, but no one can be excused from the daily ablution of the feet.

"Tender feet are often congenital. The complaint seems to descend in families, and little can be done to relieve it besides attending to my instructions regarding shoes and stockings; bathing them daily in salt and water, however, or in sea-water, often does good.

"Some people complain of excessive sweating of the feet, there being a difficulty therefore in keeping them sweet and clean. Such would do well to change their socks at least once a day. After washing the feet, they may be done over with a mixture of tannic acid and eau-de-Cologne—ten grains to an ounce—and afterwards dusted with a little flannel bag of powdered starch, or a baby's puff."

Chilblain.—Like toothache, this is one of those *little* ailments that no one receives any sympathy for. It is a very distressing complaint nevertheless, and may come to be so bad that riding the cycle is quite out of the question. Sometimes chilblain becomes chronic, and the skin often breaks, causing ulceration and congestion. The complaint more often attacks those of weakly constitution, or whose circulation is weak, and reaches its very worst form in those of bad habit of body. The immediate cause of chilblain is sudden change from cold to heat—over-reaction in fact, as when one warms his feet at a stove on a winter's day.

The preventive treatment is to get the body into good form, by temperance, regular living, plenty of cycling exercise, dry, warm socks or stockings, and the imbibition of tonics, of which probably the quinine and iron mixture is the best. People who are subject to chilblain should beware of going near a fire when cold. My own treatment and advice on this subject is as follows :—

When the hands have become chilled and numbed, care must be taken to bring them to gradually, by gentle friction, away from the fire; for this purpose a little stimulating liniment, composed of an egg beaten up with an ounce each of turps and vinegar, to which may be added a drachm or two of laudanum, is useful. A strong solution of alum (half an ounce to eight ounces of water) is sometimes used to the unbroken chilblain. Or a liniment of equal parts of tincture of iodine and liquor ammoniæ may be used as a paint twice a day. Broken chilblains are best treated with calamine ointment, or the ointment of the benzoated oxide of zinc, or with simple water dressing.

Chapped hands should be well protected from the cold, kept very clean, but not rubbed much, and either the tannin, camphor, or benzoated oxide of zinc ointment used.

Blisters of the feet or hands should not be rudely cut open, but a white cotton thread is to be passed through in order to drain them.

The frequent application of tincture of iodine to

corns often gives great relief, and renders their removal more easy. The only way to prevent corns is by wearing boots or shoes, the uppers of which are tolerably pliant and soft, and which neither fit too tightly nor are too loose. The only radical cure for corns, whether hard or soft, is removal by the knife. After this has been accomplished, corn-plasters must be worn, softened by pouring a drop or two of oil into the little round hole in the centre. Those afflicted with soft corns should wash the feet well daily, and wear a little cotton wadding between the toes. Sponging the feet daily, after the washing, with camphorated spirit has been extolled as a good means of hardening the skin.

But here is one other hint about the care of the feet which all who suffer from corns should make a note of. Hard skin is to be removed from the vicinity of the corn and from over it. Well, all know this, but all do not know that corns are to a very large extent preventible, by being careful to remove hard corrugated skin from under *all the toes*. This should be done every week after the feet have been steeped in hot water, and cyclists will find the advantage of so doing. A man who makes good use of the toe-nail brush, and takes the hint I have just thrown out, will scarcely suffer from corns.

Some Hints on Riding.—Experience will come with practice, and after a few weeks of riding, it is astonishing how easy the exercise seems to become. A free and easy seat should be studied. Sit erect, therefore, let

the muscles of the limbs do the work. It is distressing to look at some men riding a machine, their bodies wobbling from side to side with every thrust of the leg, like an old Dutch lugger in a sea-way, and their heads also going through as many motions as if they were trying to write their initials with their noses. Sit erect, I repeat, throw the shoulders well back and the chest out, so shall the lungs expand, and the position, which may at first feel constrained, will soon be as easy as it is graceful.

Take care to have the seat just high enough and not more, and remember it is better to be too high than too low. Keep the mouth shut and breathe through the nose: you will not so readily catch flies or cold if you do. Wear a loose collar, and, if you can, wear a muffler. *Do not sweat the neck.* The wind will not hurt you so long as it does not feel unpleasantly cold and cutting. Make a point of changing the undershirt and stockings, and rubbing well down after coming off a journey.

Beware of hurting yourself hill-climbing. If the ascent hurts the breathing at all, or excites the pulse, get off and walk up. If in a hurry, you can make up the time racing down the next declivity.

If you are in no hurry, pause at the top of a hill and enjoy the fresh air and the scenery; then put your hand on the brake and crawl downhill. This gives one an excellent rest.

When touring in summer I invariably get up very

early, so as to be able to rest and have luncheon about mid-day, the heat of which I avoid. But I never think of riding away from a hotel without breakfast. I make my own tea, boil my own egg or cook my own rasher, and feel quite independent of waiters. Having paid my bill the evening before, I can ride away with an easy mind in search of further pleasures and adventures.

My last memo. on tricycle riding is this: Never be induced to race while on a tour, whether against a dog-cart, a bicycle, or against time itself.

Calmness, patience, and regular perseverance will make anyone an accomplished rider.

CHAPTER X.

A CHAPTER DEDICATED TO THE FAIR SEX

MOST, if not all, of the hints and advice on health and cycling in the previous chapters of this book may be useful for ladies as well as for gentlemen. But I have now a few words to say to the fair sex only, though I have no doubt that big brothers will read them. I stand face to face with the questions—(1) Is the tricycle suitable for ladies? and (2) Are ladies as a rule strong enough for the exercise? I have well studied the former question two years ago, and answered it as follows in that queen of periodicals, "The Girl's Own Paper":—"Is it a machine suitable for ladies? I reply that it is eminently so in every way. I can hardly say more. As a means of enjoying fresh air and pleasant, healthful exercise, the tricycle is coming more and more into vogue every day. If it is a mere question of fashionableness, I have only to remind you that the machine is ridden by ladies of the highest rank, and that Her Gracious Majesty the Queen has recently presented a tricycle to each of her two grand-daughters."

The second question is one that every lady, young or not young, must answer for herself, although I may give you a few hints to enable you to come to a correct

conclusion. I should not advise a girl under fifteen to learn to ride the tricycle, although I know that many younger girls do ride them. From fourteen to sixteen most young folks grow fast, so it is as well to wait for a year or two, until the future height is not so much a matter for conjecture.

But tricycles are made to suit any given height; they are made to measure just as ulsters are, though I do not care for those that, by lowering or elevating the seat, are said to be suitable for either short or tall people. However, the height has little to do with the actual strength of the would-be rider. I would not, therefore, counsel a very delicate girl to attempt learning the tricycle, however much she may fancy she would enjoy the exercise. Let her be content to walk, until she gains sufficient nerve not to feel fatigued, after playing any ordinary out-door game for an hour at a stretch. But if the muscles of the limbs are tolerably firm; if the face be not preternaturally pale; if the digestion be good, and headaches not of frequent occurrence, and if you can run up a steep stair without discomfort, either in breathing or otherwise, then I should opine you are strong enough to learn to ride a tricycle, and having commenced this pleasant form of exercise, you are likely to get stronger and healthier every week.

I warn the beginner to avoid doing too much at first, or making too long journeys. Exercise on the tricycle should never be carried to the margin of positive fatigue. Do not, therefore, let fine weather or good roads

tempt you to ride far away from home, until you are thoroughly inured to working the machine, and you can only arrive at this stage by slow degrees. Increase your distance daily, until you find you can do a journey of from ten to twelve miles with comparative ease.

And ladies of almost any age may ride a suitable machine with great benefit to their health and condition. One lady I know, at this present moment, who is quite sixty years of age, if not more, rides with both ease and grace. She had long suffered from indigestion and giddiness. She tells me now she knows no real happiness except when on her tricycle.

When you have made up your mind, then, to learn to ride the tricycle, determine at the same time, if you are wise, to buy a new and not a second-hand one. This will be the cheapest in the long run; from £15 to £25 is about the price, according to the maker and style of the machine. Some are painted—usually black, ticked out with red or green—others are silver-plated. The former, I think, look just as well as the latter, and are little trouble to keep clean.

Get a light machine—for every extra pound tells on one in a journey—and one as little complicated as possible. The driving wheels should be very free, but I do not care for the steering wheel to be too loose; if it is so it wants the hand constantly on the turning handle, and the mind always on the rack, and the eye on watch lest it should take charge.

The steering gear, however, must not be stiff.

Having once bought your machine, be most careful, when not using it, to keep it in a dry place. It should be frequently sponged over with cold water, and the moisture afterwards removed. The nuts are made of steel, and should be kept in a bright condition. If they get damp they rust, and are then unsightly. Never, therefore, start upon a journey without rubbing them well with an oiled rag.

See also before you mount that everything is as it should be, that every nut is firm in its place, that the action of the machine is free and easy, and the cushion properly secured.

Take your first lesson on a broad level road, and be more than content—be happy—if you get into the way of turning the cranks the first day.

In commencing, you will have three difficulties to contend against:—You will not find it very easy to keep your feet on the treadles; you must not lift the feet, they must feel the treadles all the way round, and press only as they go down, and that pressure must be given with the fore part of the foot. The management of the brake will form the second difficulty, and the third that of the steering-gear. You will be apt to forget that there is such a thing as a brake, by which you can stop at will and instantly, and you will be apt to turn the steering-handle the wrong way. But these difficulties will soon be overcome, and in a few days you will be able to ride the machine with comparative ease, comfort, and confidence.

Until you are a perfect adept at tricycling, however, do not quit hold of the steering handle, and when in crowded roads keep your left hand on the brake as well. Do so also going down hill, in order to regulate the speed, your feet will then be on the rest, and if it were not for the brake, you might be very much at the mercy of your tricycle. It would run away with you, and the consequences might be very serious.

Take care how you turn round to come back. Practice this where you have plenty of room, and never turn a corner at full speed, or, ten to one, the machine will be capsized. Most good machines will turn in their own length, while you are going at a walking pace, but if you attempt any such manœuvre while going quick, the tricycle will speedily be on its beam-ends, and the thoughtless rider turning in her own length in the dust.

With fair play and fair caution, accidents in tricycle-riding are easily avoided. Indeed, there is no safer means of making a journey, not even walking itself.

Remember that in riding you must strictly adhere to the rule of the road—

> "When you go left you go right,
> When you go right you go wrong."

It is best, therefore, to bear pretty well to your own side—the left, and pass every kind of conveyance you meet on that side, but anything you want to pass that is going in the same direction as yourself, you pass on the right. Be more than particular when rounding corners to keep to the left.

When passing through towns be very cautious: take care of yourself and of other people. Keep well clear of the tramways, and look out for gratings in the middle of the street. When these lie across the road, they are not dangerous, but, when they run in the same direction, to get a wheel jammed in one may mean an accident. Never ride without a bell, nor without lamps.

You are obliged to light these at sunset, and it is safest to keep within the pale of the law. Two lamps, one at each side, are better than one in the centre, and they should be light in construction, well and scientifically fixed, with good reflectors and red eyes behind.

On the much-vexed question of dress for the lady tricyclist, I shall at present say but little. I believe that Mrs. Beck, of 22, Connaught Street, London, would be better able to inform my readers on this subject than I am.

But about *Corsets*. As a medical man, who has carefully considered the subject, I must say I approve of them if they are light and not tight. They give support to the spine and thorax, but if they hank the body at all, they seriously interfere with the freedom of the most vital organs in the body.

If ladies *will* have waists like hornets, let them reserve these hornet-waists for the promenade, the afternoon tea, or concert-room but, if they value health, let them be more in accordance with nature while riding.

In 1882 the Rational Dress Society offered a prize for just the thing we want for our wives and sisters, viz., the dress which best accords with the following requirements:—(1.) Freedom of movement. (2.) Absence of pressure over any part of the body. (3.) No more weight than is necessary for warmth, and both weight and warmth evenly distributed. (4.) Beauty and grace, combined with comfort and convenience. (5.) Not departing too conspicuously from women's ordinary dress.

The dress for the tricycle should fit the body as closely as possible. There must be no trailing garments to get entangled among the cog-wheels. I speak feelingly. The worst "spill" ever I had in my life, from any kind of trap whatever, was occasioned by the end of a Highland plaid I wore getting round the driving-gear of my tricycle, while going down hill at full speed.

An umbrella can be carried, and a mackintosh, and the hat that is worn should be both light and soft; if the reverse, it causes perspiration, and may induce headache. The boots should be of medium stoutness.

When going on a long journey to the house of a friend, always take with you a change of underclothing to put on immediately after you arrive, for there is always more or less dampness caused by perspiring. Change again after coming home, rest a little, and, if you feel fatigued, have a cup of tea or coffee.

There used to be a deal of pitiable nonsense talked about the unseemliness of tricycle-riding by ladies, and

many of those who were courageous enough to adopt the delightful exercise were, after all, half ashamed of being seen mounted. I am glad to know that all this is changing, or has changed, for the better. It would be sad indeed if so-called modesty, or mere prudery, were to debar ladies from enjoying a species of exercise that has done, and is every day doing, so much good to the health of thousands of the sterner sex, and which is even benefiting the community in general, and tending to lower the death rate by raising the standard of our national strength.

In conclusion, as a medical man, I must lift up a warning voice against the practice, far too common I am sorry to say, of making records and beating records. For a man even to practice this is dangerous, for a woman it is doubly so, and is apt to lead to dilatation of the heart, and other mischief which need not here be named.

The pleasures of cycling are many and varied, if it be carried out with moderation and judiciously; if recklessly, the rider may have to repent it, not once only, but for ever.

CHAPTER XI.

Dedicated to the Delicate.

A word about the abuse of drugs.—Remedies old and new.—The best new medicines.—Sleeplessness.—The truth about mineral waters.—A tourist's filter.—*A Dios.*

FOR the past ten or twelve years I have been a constant contributor to various magazines and publications, of papers bearing on the popular health and on hygienics. I have never, to my knowledge, advised the treatment of cases of illness, whether chronic or otherwise, by interested though unskilled persons, where the services of a properly-qualified medical man could be obtained.

I should be rejoiced, indeed, to see the elements or rudiments of anatomy, physiology, and therapeutics taught in our public schools. A ground-work of such knowledge would undoubtedly go far to safeguard the health of the people, and to dispel that dangerous belief in the efficacy of quack medicines and specifics, which is so rampant in the present day.

But, at the same time, bearing in mind that a little knowledge is a dangerous thing, I should always deprecate not only the self-treatment of diseases, but the

placing of too great faith in medicine of any kind. Nevertheless, there are two books I would like to recommend my cycling friends to possess copies of. One is a *multum in magno*, published by Messrs. Cassell & Co., and called "The Family Physician;" the other a *multum in parvo*, published by Messrs. Allen & Son, 21, Marylebone Lane, Oxford Street. The latter is merely a shilling manual, written by myself, and called "Turkish and other Baths: A Guide to Longevity." I wish it to be distinctly understood that in recommending these books no advantage accrues to myself, monetary or otherwise, for the copyright of every one of my works has been sold *before the books themselves were written.* My publishers, Messrs. Cassell & Co., Messrs. Dean & Son, Messrs. Hodder & Stoughton, Messrs. Partridge & Co., Messrs. Iliffe & Son, etc., can testify to the truth of what I state, so that whatever I advise I advise in sincerity, prompted by that feeling of brotherly kindness which should ever exist between man and man, and which is nowhere better evinced than in the great commune of cyclists.

Well, now, fully two-thirds of all the illnesses that afflict our poor humanity are of a chronic nature, and usually the results of delicateness of constitution, or of constitutions rendered delicate by inattention to, or disobedience of, the laws of health. It is from this "only middling" class, as I term them at page 29, that the chemist gets his best and most constant customers.

They too often make the mistake of imagining they can live by medicine alone. Indeed, they too often take medicine when there is no real necessity for so doing. They moreover make bad choice of the drugs they do use. A medicine chest, if judiciously filled, is an article that should be in every family. But though from a multitude of counsellors one may obtain wisdom, from a multiplicity of drugs one is likely to obtain the very reverse of health. I have a book alongside here on a shelf—and a very useful one it is for students—namely, "Nelligan's Medicines." There are no less than 4,500 preparations named and described therein! 4,500! think of it! And few of the best London practitioners use or prescribe more than fifty of them.

The medicines most likely to be abused by those who treat themselves are:—

1. *Aperients.*—The constant use of these is very injurious, and I hardly know any one organ of the body they do not tend to weaken. It is sometimes better far to suffer from constipation for a day or two than to take such "remedies." The bath, exercise, fruit and vegetables are the best aperients.

2. *Anti-acids.*—People fly to these to relieve acidity of the stomach, heartburn, and the various qualms and spasms induced by eating. They are dangerous in that they destroy the coats of the stomach, and some of them, especially soda, are apt to induce neuralgia and rheumatism.

3. *Tonics.*—These are much abused Many of them are of a poisonous nature, and, even though taken in small doses, are apt to have an accumulative effect on the system. This should never be forgotten. It should be remembered that, with few exceptions, the main object in giving tonics is to increase the appetite, so as to supply the system with plenty of nourishment. A tonic has in itself no power to support life.

4. *Stimulants.*—As a general rule these should be avoided entirely.

5. *Narcotics.*—These, in any shape or form, are poisons and tissue-destroyers, and should never be taken unless prescribed by a medical man.

The tendency of the day, even among our best medical practitioners, is to prescribe their medicines in more elegant and useful forms and combinations than those found in the British Pharmacopœia. Indeed, to say the least of it, some of the nostrums therein are far from neat. A medical man can have any of his own favourite prescriptions made up into pills, so as to be quite tasteless, perfectly round or ovoid, and easy to swallow, but he often finds on the chemist's counter preparations ready-made, and more handy and palatable than even he himself could have prescribed. Is it any wonder, then, that he recommends those, and thus saves himself the bother of writing a prescription?

Moreover, he finds on his visits to his chemist's or druggist's establishments, many drugs newly introduced

to this country, probably from India, or from America, which merit a trial, and are probably found more useful for certain ailments than anything in our pharmacopœia. Or, instead of a new drug, it may be merely a new formula.

Many of these are introduced to the notice of the medical practitioner by such well-known and energetic caterers for medical comforts as Messrs. Burroughs, Wellcome & Co., of Snow Hill, London; Messrs. Allen and Hanbury, Plough Court, Lombard Street, London; Messrs. Corbyn & Stacey, High Holborn; Messrs. Savory & Moore, Bow Street, London; Messrs. Morson and Son, Russell Square, London; and Messrs. Ansar, Harford & Co., 77, Strand, London.

There are, of course, many others; I do but mention those with whose preparations I am familiar, and have been successful with in treating cases all over the world.

Had I been in practice thirty or forty years ago, I dare say I would have been quite content to prescribe the most roughly-prepared cod liver oil, extracted by heat or pressure from the cod's liver. Or I might have ordered the liver itself to be eaten on toast, with pepper and salt. But now Messrs. Ansar, Harford & Co. hand me the De Jongh light-brown cod liver oil, which I have the greatest faith in, and prescribe in preference to all others. But Savory & Moore have a most elegant preparation called Pancreatic Emulsion, which I have used with great benefit in cases of chest and stomach

debility, and which I now earnestly recommend to weakly cyclists of either sex, taken with a little wine or brandy, and, at the same time, a dose of De Jongh's Oil. With this I always advise a morsel of biscuit, with a drop of milk, or other light palatable food, to be taken. It makes a meal in itself, and a very nourishing one indeed.

A boon to thousands would be, if better known, Corbyn and Stacey's Chaulmoogra. It is an Indian remedy of great use, not only in skin complaints, but in rheumatism. I cannot recommend it too highly.

Messrs. Morson and Son's Pepsine, as a remedy for slow digestion, is almost too well known to need mentioning. It is the best in the market and deserves a trial. To cyclists I specially recommend the lozenges, as with the Pepsine a large quantity of salivary juice is also swallowed.

I do not know better nor more judiciously compounded formulæ than those of Messrs. Burroughs, Wellcome and Co. They have reduced the art of prescribing to an exact science, and have introduced many most elegant and useful specialities from other countries. I cannot resist the temptation to mention a very few of these just as occur to me. Many of these, such as Wyeth's Hypodermic tablets, are only of interest to medical men; others are of general interest, especially to cyclists. The Medicated tablets, for instance — these are tiny lozenges, very elegant

and useful. Among others, Bismuth tablets, Lithia tablets, and tablets of quinine, soda-mint, potass-bromide, etc., etc. Then they have Elixoids of various tonics and alteratives; also a beef and iron wine, and all kinds of new formulæ in the shape of gelatine-covered ovoid-shaped pills. But two preparations of theirs in particular I want to bring before the notice of cyclists—Kepler's Extract of Malt, and Hazeline. The former is one of the best tonics in the world, and is capable of being combined with, and aiding the digestion of numerous other tonics. Thus, we have Kepler's Extract of Malt with iron, quinine, and strychnia, with hops, with pancreatine, with the iodides, with the hypophosphites, with pepsine, etc., etc. The Hazeline, applied to sores, or abrasions, or chafes, wounds, etc., with a morsel of Lawton's Absorbent Cotton, is curative, because antiseptic. On the whole it is a handy and elegant preparation. Cyclists should never go on tours without it.

Under my directions, this firm are preparing a most useful little case for the cyclist, a kind of cyclist's *vade mecum*—a fairy medicine chest—which shall contain everything needful on a long cycling tour in case of either illness or accident, but in small compass—small enough, indeed, for a lady's wallet. The medicines, etc., will, it is needless to say, be only those most approved by the medical profession. A small book, descriptive of the various illnesses and accidents inci-

dental to the road, with appropriate treatment, will also be found in the *vade mecum*.

Allen and Hanbury have introduced some very efficacious throat pastilles, which I have much pleasure in recommending to those who suffer from these complaints.

There is a medicine called Cockle's Antibilious Pill which I have used and recommended for years. It is prescribed by many very eminent medical men, and, although a proprietary medicine, is one of the best and easiest aperient pills in existence.

Let me earnestly warn cyclists against the use of narcotics when tired or jaded. A warm bath is the best remedy, or a cup of tea, or both combined.

For the bath cyclists should try the new "Samphire Soap" introduced by Messrs. Field. Ladies ought to get Professor Field's beautiful little treatise on "Toilet Hygiene." It should find a place in every boudoir.

Ladies all know the value of Price's Glycerine, better than even their medical men: but here is a hint. Mix it with strong rosewater and a most useful preparation for the hands and face is at once obtained. One part of glycerine and two of rosewater.

have often been asked the question—Should married ladies ride the tricycle? My answer has been invariably—Yes. Indeed, I hope that every year will see more and more lady cyclists from the ranks of the Benedict. One of the comic papers had a cartoon

some time ago representing a family outing, but here the father had baby to carry. I should recommend baby to be left at home until old enough to paddle its own canoe; but I would take this opportunity of warning married ladies against the use of the ordinary soothing syrups, which contain opium. Thousands of poor infants are destroyed annually by such calmatives, and many grow up delicate and even imbecile from their use. I have for many years lifted up my warning voice against the drugging of children, and I hope not ineffectually. Woodward's Gripe Water is the only safe calmative; it contains no opium, and is therefore recommended by the profession.

Delicate people are invariably nervous. Sometimes a physician or a dean starts up and hurls wholesale condemnation against tea. Get the best Indian tea. I get mine from Cooper and Cooper, and have done so for years. Use it sparingly, but do not be afraid of it. It is the safest drink for the road. Coffee I also recommend for the morning, but the nervous should use cocoatina or cocoa. Schweitzer's cocoatina is the easiest to digest, and I think Fry's cocoa and chocolate is the best. One thing at least is true about Fry's, it cannot be beaten for purity, digestibility, and excellence in preparation.

Sleeplessness is one of the most distressing ailments of the age. Cyclists who enjoy the sport daily and do not indulge in stimulants seldom or never suffer from

it. I have always maintained that feather beds do not conduce to sleep in the young and middle-aged. The flat spring mattresses, made so cheaply and well by Messrs. Chorlton & Dugdale, of Manchester, are a perfect luxury. I am happy to say they are much used now in hotels. I never myself, when touring, sleep on a feather bed. I would sooner roll myself up in my Gordon tartan plaid and sleep with my dog on the hearth-rug.

Now, just a word or two in conclusion about the best aerated waters. There are many firms who make these fairly well, but the great firm of Kinmond & Co., of Leamington, in my opinion, make the best. So very much depends on the kind of water used, as well as on the cleanness of the apparatus used in the manufacture. It is a positive treat to walk over the Leamington establishment and see the process of manufacture of the various mineral waters. The question which so often occurs to the cyclist in hot weather is—What *shall* I drink? Spirits is out of the question. Beer muddles and tires one. Tea cannot be had in a hurry. Why, I wonder, cannot our cycling houses supply us with better mineral waters? They do good. Without mineral substances health cannot long be retained, and these are often deficient in ordinary food. They purify the blood, and so increase bodily and mental strength, and therefore health, in the truest and only sense of the word. Moreover, the carbonic acid so largely

contained in the best mineral waters assists digestion to a very marked degree.

The drinking of well-prepared mineral waters tends to the proper nourishment of the muscles and bone, and although these waters are not directly stimulant, still they are so indirectly, because by purifying the blood they lighten brain and mind. They are of very great use also in the treatment of various diseases, chronic and otherwise, notably in rheumatism and nervousness. I had a case the other day in which a patient in the convalescent stage of acute rheumatism drank from nine to twelve bottles of soda-water daily. It was during the hot weather. He made a very perfect recovery.

Kinmond's soda-water *is* soda water, and really contains a fixed proportion of the purest bi-carbonate of soda. It is, therefore, invaluable in cases of acid dyspepsia, where the taking of alkalies simply mixed with ordinary water would be dangerous. The *lemonade* made by the same firm is made with real fruit juice instead of acid. This is a very great improvement.

The Kinmond Seltzer Water is not only a good drink but is also a liver tonic. Then we have a lithia water much recommended by my profession in gout and gravel, stone, etc., and a *potass* water also good in gout, and especially so in neutralising the tendency to acidity of the blood caused—shall I put it plainly?—by dining out. Kinmond's Phosphoretta is a nerve tonic, and, like all

other tonics, should be taken continuously for, say, a fortnight or three weeks at a time.

But for a really delicious lady-cyclist's drink I recommend Kinmond's Orange Champagne. It is refreshing, tonic and exhilarating, without being alcoholically stimulant. The Ginger Ale made by the same firm I can specially recommend. Try it.

While touring I myself carry in my basket a small filter—cost, half-a-crown—which is used by our troops in malarious countries. I can drink water anywhere through it, with safety. It was made by the Carbon Silicated Filter Company, of Battersea, London.

And now, brother and sister cyclists, my task is done. I have had very much pleasure in writing this book. I hope and trust that my efforts will be appreciated. I have tried to tell you all I know, and recommended only the best of everything. It remains for me now but to say—

A Dios.

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W. GORDON STABLES,
C.M., M.D., R.N.

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